User Guide
LLAMA Truck Meridian

Read Carefully Before Use. Keep for Future Reference

Dear Customer

Thank you for purchasing our product!
Please read these instructions carefully.

This manual will show you how to assemble your electric tricycle. Please read the manual and follow it. If you have any questions, it is recommended to ask a tricycle mechanic for help.

Important Notes

This manual contains important information of safety, performance and maintenance. Please ensure that you have read and understood the following warnings and precautions before using the this product for the first time. Special tools and skills are required to assemble and adjust the tricycle for the first time. If possible, it is recommended that it be done by a certified tricycle mechanic. Please note, this guide is not intended as a comprehensive repair manual. All repairs, service, and in-depth maintenance should be performed by a trained bicycle mechanic at your local retailer stores.
If you lend your electric tricycle to others, please ask them to read this manual to minimize the possibility of accidents.

WARNING: Wear suitable and qualified helmets when riding, and fluorescent or reflective clothing at night.
WARNING: As it is impossible to predict every situation or condition that may occur during riding, this manual makes no representations about the safe use of tricycles under any circumstances. There are unpredictable or avoidable risks in using tricycles, which are borne by cyclists alone.
WARNING: Your existing insurance policies may not cover everything that could occur when using an electric tricycle. Please consult your insurance company or your insurance broker.
WARNING: Improper assembly of your electric tricycle may cause significant damage to the tricycle and even personal injury.
WARNING: The motor, controller, sensor, battery and various cables on the tricycle shall not be used for other purposes. Do not disassemble or modify these parts, as this may cause serious damage to them. It may also do harm to your personal safety.

Warranty coverage for the main components of the product: The motor, frame, and controller shall be covered for a period of two (2) years. The gearbox, differential box, and rear axle shall be covered for one (1) year. The battery, charger, lighting (including headlight, tail light, and turn signal), throttle grip, dashboard, and leaf spring shock absorber shall be covered for six (6) months.
In addition, certain consumable parts are also included under warranty. The detailed warranty terms for these specific parts shall be subject to the product user manual provided by the Seller.

It is hereby agreed that damages caused by human factors, misuse, or improper operation shall not be covered by this warranty.

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1. Quick Reference

Tricycle Details	
Model	Meridian / Meridian Pro
Size	3120 mm (L)x 1100 mm (W)x1710 mm (H)
Wheel Size	Front: 375 -12; back: 400 -12 automobile-grade tires
Max Speed	3 2 mph
Tire Pressure	Refer to tire marking for proper pressure
Load Capacity	1000 kg
Motor	1800w
Motor Type	DC 72V square wave motor
Suspension	37 Hydraulic External Spring Shock Absorber
Weight:	407kg / 471kg (Pro)
Paint Process	Triple-layer spray and bake coating process
Frame Design	Double-layer integrated bent beam frame
Material Thickness	Truck-grade automotive panel with rubberized anti-rust coating
Brake System	220 drum brakes with three-brake linkage system and anti-slip hill descent functionality
Color	blue

1.1 General Description

The LLAMA Truck Meridian is a robust, eco-friendly, and highly versatile three-wheeler designed for heavy-duty cargo transport and efficient urban or rural logistics. Engineered for durability and performance, it combines strong load capacity, advanced suspension, and user-friendly operation to deliver a reliable transport solution.

Performance and Powertrain
This Meridian offers a maximum speed of 32 mph, making it suitable for city and light highway travel. The vehicle supports motor options ranging from 1800W to 2000W, allowing users to select the optimal power output based on their load and terrain requirements. The motor type is a DC 72V square wave motor, known for its efficiency and stable performance under continuous use.

Load Capacity and Dimensions
The Meridian can carry up to 1000 kg of cargo, making it ideal for small businesses, delivery services, and agricultural use. Its wheelbase measures long, providing a stable platform for heavy loads. The overall dimensions of the vehicle are 3120 mm in length, 1100 mm in width, and 1710 mm in height, with a total weight of 407kg/471kg(Pro), balancing maneuverability with payload capacity.

Structural Design and Materials
The frame features a double-layer integrated bent beam design, ensuring structural rigidity and long-term durability. A triple-layer spray and bake paint process provides a premium finish that withstands harsh environments.

Suspension and Tires
The tricycle is equipped with 37 hydraulic external spring shock absorbers, offering smooth handling and excellent load support even on uneven roads. Steel-wire radial tires provide superior traction, stability, and durability for long-term operation.

Braking and Safety
Safety is reinforced with a 220 drum brake system featuring a three-brake linkage and anti-slip hill descent functionality, ensuring reliable stopping power and added control on inclines.

Lighting and Visibility
The Meridian comes with Black Warrior headlights and spotlights, delivering strong illumination for safe night driving or low-light conditions.

Functional Advantages
This tricycle is eco-friendly, producing zero emissions while offering low riding and maintenance costs. Its quick acceleration and low operational overhead make it an ideal choice for commercial and personal cargo transport. Additionally, the design emphasizes ease of repair and maintenance, reducing downtime and increasing overall efficiency.

2. Read Before You Ride

Welcome to this Owner's Manual
This manual is intended to be read carefully before your first ride — and referred to often — so you can enjoy your new electric tricycle with confidence, comfort, and safety. It contains important information, specific warnings, and operating instructions tailored for electric three-wheeled trikes, which handle differently from both bicycles and non-electric trikes.

An electric trike is both a vehicle and a powered machine. While it offers increased comfort, stability, and motor-assisted performance, it also introduces additional safety considerations. Riding an e-trike carries inherent risk, including the possibility of injury or even death. By riding this trike, you voluntarily assume that risk. Our goal is to help you minimize it through awareness and responsible operation.

■ Trikes Are Not Bicycles: A trike differs from a bicycle in both design and handling. This manual includes details that are specific to electric tricycles. A three-wheeled design offers more stability at low to high speeds, but it does not balance like a bicycle and may handle differently when turning, stopping, or riding on uneven surfaces. Take time to become familiar with how your e-trike behaves — especially under motor power.

■ Be Aware Of Your Width & Position: The widest part of an adult trike is at the rear wheels, not the front. Just because the front wheel clears an obstacle doesn't mean the rear will. Allow ample side clearance when riding near curbs, pedestrians, or roadside objects. When passing or turning, keep in mind the added width behind you. Use caution around potholes, soft shoulders, or debris that could cause a loss of control — especially with added motor power.

■ Age Restrictions & Helmet Use: This electric trike is not intended for riders under the age of 16. Additionally, age restrictions and helmet laws for e-bike use may vary by state or locality. Always consult your local regulations to ensure proper, legal, and safe operation.

■ Know Your Local Laws: Electric tricycles may fall under different regulations than traditional bicycles or trikes. Many municipalities have specific rules governing

motorized cycles, speed limits, and where they can be ridden. It is your responsibility to research and follow all applicable local, state, and federal laws. Ask your local retailers that can assist with this information.
■ Ride Defensively: Stay alert to your surroundings and always be prepared for sudden hazards — from cars and pedestrians to uneven pavement or unpredictable traffic behavior. The additional weight and speed of an electric trike means you may need more time and distance to stop safely.

3. Pre-Ride Safety Check

ATTENTION!

Before your first ride and before each subsequent ride, perform the safety check below as well as any additional verifications outlined in the Owner's Manual to ensure your electric trike is safe to ride. Failure to do so could result in serious injury.

■ Fastener Check: Ensure all fasteners, including nuts, bolts, and screws, are appropriately tightened for the seatpost, stem, and handlebar. Check their tightness by securing the trike between your legs and attempting to twist, push, and pull the handlebar and seat. If any component moves, realign it, increase bolt tension, and repeat until there is no movement.

■ Handlebar Adjustment: Adjust the Handlebar to the correct height for comfortable riding, ensuring it is securely tightened before riding.

■ Wheels & Tires: Check that all three wheels spin freely without wobbling and are properly aligned. Ensure that the axle nuts or bolts are securely fastened. Maintain proper tire pressure by inflating each tire to the recommended PSI using an accurate gauge. If you’re unsure about wheel alignment or tire pressure, refer to the Owner’s Manual or consult a retailer staff.

■ Lubrication & Drivetrain: Ensure the gearbox or transmission, the rear axle and differential, the steering system such as the steering column, ball joints, and universal joints, the suspension and shock absorbers, as well as moving components like the brake pedal and clutch lever are clean, lubricated, and properly tensioned, with the rear cog, motor output shaft and drive gear securely fastened and free from excessive wear.

■ Brake Functionality: Stamp the brake pedal to ensure firm engagement without excessive travel, check that pads contact the rims (or rotors) evenly without rubbing, confirm cable and anchor bolt(s) are securely tightened, verify brake arms return evenly, and perform a low-speed test for smooth stopping. If the brakes feel weak or slip, and if unsure about the brake’s performance, seek help from a retailer staff or a trained bicycle mechanic.

■ E-System Check: Ensure the battery is fully charged and securely locked into place. Inspect the battery housing for any signs of physical damage, such as cracks, swelling, or corrosion near the terminals. Check that the battery connectors are clean, dry, and free from rust or debris, and confirm that all connections are tight and properly seated. Verify that the power switch and display turn on and respond correctly. Ensure that both the hand and foot brakes and throttle function as expected. Listen for unusual motor noises and feel for smooth engagement during a test ride. Inspect all wiring and connectors along the frame for any fraying, pinching, or exposed wires. If anything seems out of the ordinary with the battery or e-bike system, stop riding and contact a trained bicycle mechanic.

4. Precautions and Warnings

Important Safety & Handling Information:

Riding a trike differs from a bicycle: you cannot lean into turns as with two-wheeled bikes. Always keep all three wheels on the ground, making turns slowly and carefully to prevent tipping. Sudden direction changes can destabilize the trike, leading to accidents. When learning, maintain low speeds and take time to familiarize yourself with the trike's handling and turning characteristics. If unsure, slow down. With practice, you'll gain confidence in riding and stopping safely.

Warning – Usage Limitations & Rider Requirements:

■ This trike is intended for paved surfaces only and is not designed for off-road use. It is intended for one rider only, aged 16 or older, with a maximum rider weight of 200kg. The rear cargo box supports up to 1000 kg of cargo and is not designed to a child, pet, or passenger.

Warning – Turning & Tipping Hazards:

■ Sharp Turns & Speed: Turning too sharply or at speeds above 10 km/h can cause the trike to tip, leading to serious injury. Always take turns slowly and smoothly to maintain stability.

■ Hands On The Handlebars: Always keep both hands on the handlebars while riding. Riding with no hands can cause instability, leading to a tip-over and potential injury or death.

Warning – Hill Climbing & Motor Use:

■ Hill Climbing & Motor Use: Your ability to climb hills will depend on several factors, including terrain grade, rider weight, cargo weight, and momentum. for heavy loads and uphill driving, switch the high/low gear lever to "L"(Low).
During the ascent, maintain a steady
speed and do not change gears. Ensure that the gear is properly set prior to starting the to guarantee safety and optimal vehicle performance.

Warning – Speed Limitations:

■ Maximum Assisted Speed: For safety, the electric trike's power-assisted speed is limited to 32 mph; exceeding this can compromise control and increase accident risk.

Warning – Riding In Low Visibility Conditions:

■ Night Riding & Legal Compliance: Avoid riding at night or in low-visibility conditions. If nighttime riding is necessary, make sure to turn on your white front light and a red rear light. Most municipalities legally require proper lighting; consult your local bike shop to ensure compliance with local regulations.

Warning – Rear Cargo Bed Safety:

■ Cargo Limitations: The rear cargo box is designed for light and heavy cargo only. Never place a child, pet, or any passenger in the cargo box, as it is not intended to support or protect passengers.

■ Injury Or Death Risk: Placing passengers in the cargo box exposes them to moving parts and turning wheels, presenting serious dangers. A fall from the cargo box could be fatal. This trike is designed for one rider only.

Warning — Charger & Battery Charging Safety:

■Only Use The Charger Provided With Your Trike: Using an incompatible charger can cause overheating, fire, or permanent battery damage and will void your warranty.

■ Inspect Charger Before Use: Do not use the charger if the flexible power cord or output cable is frayed.

■Charging Environment: Never charge the battery unattended or near flammable materials. Always charge in a dry, well-ventilated area.

■Charging Temperature: The battery is intended to be charged when the ambient temperature is between 32°F and 104°F (0°C and 40°C). Never charge the battery if ambient temperature is outside this range.

Warning — Water Exposure:

■ Wet Weather Caution: This trike is water-resistant, not waterproof; avoid riding in heavy rain or through deep puddles, as prolonged exposure to water can damage electrical components and reduce braking performance.

Warning — Throttle & Acceleration Awareness:

■ Mounting & Dismounting: Exercise caution during mounting, dismounting, or when walking the trike. Accidental throttle activation can cause the trike to lurch forward unexpectedly.

■ Handling The Trike: Always power off the trike or disable the throttle before handling the trike while not riding.

Warning — Maintenance & Modifications:

■ Power Cut-Off Before Service: Always turn off the power and remove the battery before performing any maintenance, adjustments, or transport.

■ Unauthorized Modifications: Do not disassemble, modify, or attempt to repair any electrical components of the e-trike, including the motor, controller, battery, charger, throttle, or wiring harness. Unauthorized actions can lead to hazardous conditions including electric shock, void the warranty, and may cause serious injury or death. For all service-related needs, contact your local retailer.

■ Electrical System Integrity: Do not attempt to modify the electrical system, install non-OEM accessories, or bypass the speed limiter. Unauthorized modifications may result in fire, loss of control, or void your warranty.

WARNING! – This trike is intended for riders 16 years of age and older.
WARNING! – Maximum rider weight limit is 200 kg.
WARNING! – Maximum cargo weight limit is 1000 kg.

5. First Ride

Starting Your Ride:

■ Take it Slow at First: Practice in a safe area before venturing out onto busy roads or paths.
■ Stay Visible:Wear bright clothing and use your lights when riding at night or in low-light
conditions.
■ Check Local Regulations: Laws regarding e-Trike usage vary, so ensure you're familiar with the rules in your area. If you're new to electric trikes, begin in Low-speed Mode and take time to get familiar with the trike's handling, speeding, and braking performance.
■ Braking / Stopping: The LLAMA Truck Electric Trike features a robust braking system designed for enhanced safety and control. Riders are advised to practice braking in a safe, controlled environment to become accustomed to the trike's responsive stopping power before navigating busy roads or paths. This preparation ensures a safer and more confident riding experience.
■ Brake Application Technique: Apply both front and rear brakes simultaneously with even pressure to maintain stability. Avoid sudden braking by decelerating gradually to prevent skidding and maintain control, especially on wet or slippery surfaces.
■ Estimated Range: The estimated range of your electric trike can vary depending on several factors such as rider weight, terrain, riding style, battery capacity and cargo weight.
■ Important: Battery performance will naturally decline over time as the battery ages.

Speed Mode Instructions
Press the "S" button to activate Sport Mode for increased power and perform
ance. Turn off Sport Mode for normal power output and everyday driving.

Load Mode Instructions
For flat roads or light loads (less than 1,100 lbs), it is recommended to
switch to "H" (High) gear.
For uphill driving or heavy loads (over 1,100 lbs), it is recommended to
switch to "L" (Low) gear and maintain a low speed while driving.

Important Notes:

- Always select the appropriate gear before starting your ride.
- Avoid frequent gear shifting at high speeds or while climbing hills, as this may affect performance and safety.
- The maximum unloading weight for a tricycle with **hydraulic self-dumping is 800 kg**; exceeding this weight risks damaging the tricycle.

6. Product Diagram

Image 1

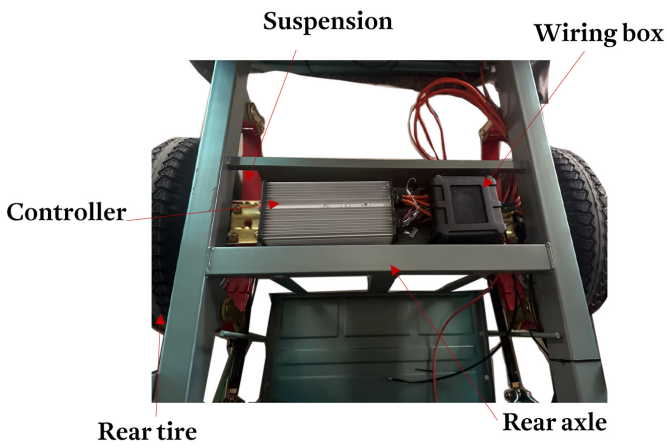


Image 2

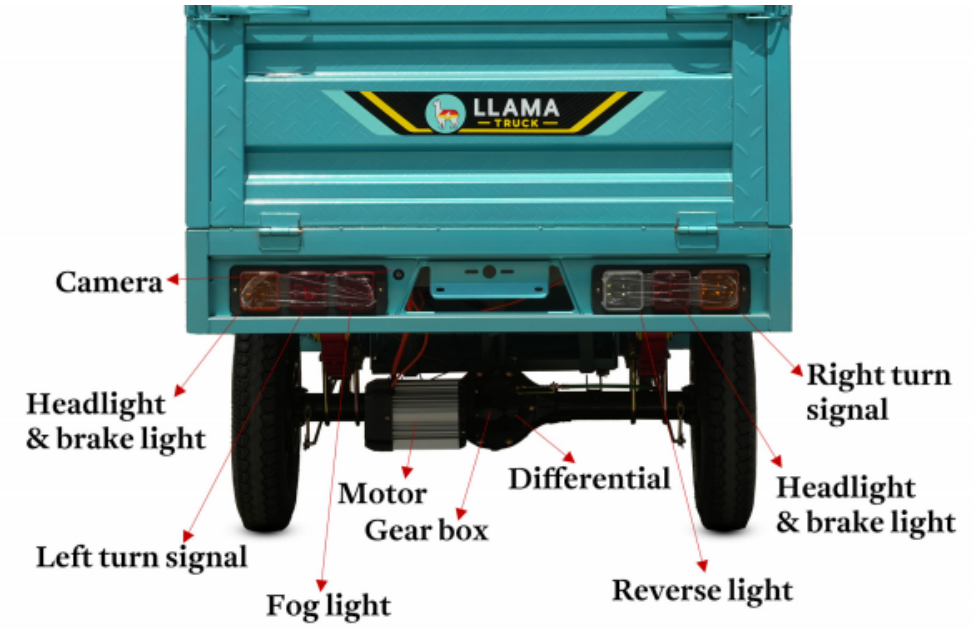
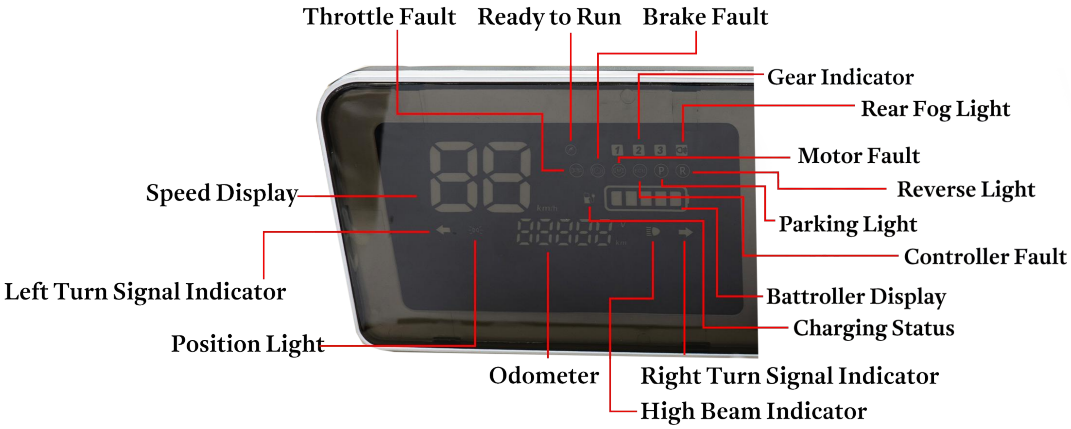


Image 3

Image 4

Image 5

7. Dashboard Diagram



8. Battery Precautions & Warnings

Read Before Use:

■ Carefully read all safety instructions and labels on the battery before using it.

■ Only use the battery in safe, appropriate environments. Keep it away from extreme temperatures, high- voltage areas, and other hazardous conditions.

Keep Away from Heat and Children:

■ Do not expose the battery to heat sources or open flames.

■ Keep the battery out of reach of children, and never throw or misuse the battery.

Avoid Short Circuits and Disassembly:

■ Do not short-circuit the battery terminals (anode and cathode).

■ Never disassemble or tamper with the battery, and avoid exposing it to moisture, which can increase the risk of damage or failure.

Storage Guidelines:

■ If storing the battery for a long period:

■ Keep it in a cool, dry place.

■ If the truck will not be used for an extended period, charge the battery every 3-6 months and store it at approximately 60-80% charge, otherwise, the battery may be damaged.

■ Use non-conductive packaging to avoid contact with metal objects or other batteries.

Proper Disposal:

■ Dispose of used or damaged batteries responsibly.

■ Do not throw them into fire or water. Follow local regulations for battery recycling or disposal.

Use Only with Approved Devices:

■ Do not use this battery in devices it was not designed for.

■ Improper use can reduce battery life or cause dangerous reactions, including overheating, smoke, deformation, or fire.

Built-in Safety Features:

■ Do not disassemble the battery, as this can disable the safety system and lead to overheating, smoke, fire, or deformation.

Avoid Metal Contact:

■ Never allow the battery terminals (electrodes) to touch metal objects.

■ Do not store or transport the battery with metal items (e.g., tools or coins), as this can cause a short circuit, resulting in high current flow, which may lead to overheating, smoke, fire, or deformation.

Keep Away from Heat and Flames:

■ Do not heat, burn, or expose the battery to open flames.

■ Excessive heat can damage internal components, causing the battery to overheat, smoke, deform, or catch fire.

Temperature Limits:

■ Never use or store the battery near heat sources or in environments over 75°C (167°F).

■ High temperatures may lead to internal short circuits and cause the battery to overheat, smoke, deform, or ignite.

Avoid Water Exposure:

■ Do not expose the battery to water or high humidity.

■ Moisture can damage the internal protection circuit and cause abnormal chemical reactions, leading to overheating, smoke, deformation, or fire.

Charge Safely:

■ Do not charge the battery near fire or in direct sunlight.

■ Only use the charger designed for this battery. Using an incorrect charger can disable safety features and result in dangerous overheating or fire.

Do Not Damage the Battery:

■ Never crush, puncture, strike, or otherwise damage the battery.

■ Any physical damage may cause internal failure, leading to heat, smoke, fire, or deformation.

■ Do Not Plug Directly Into a Wall Outlet:

■ Never connect the battery directly to a power outlet.

■ This can result in high voltage and current flow, which may severely damage the battery and create a fire hazard.

Use Only with Approved Devices:

■ Do not use this battery in devices it was not designed for.

■ Improper use can reduce battery life or cause dangerous reactions, including overheating, smoke, deformation, or fire.

8.1 Battery troubleshooting

Battery Troubleshooting		
Fault status	**Cause of failure**	**Troubleshooting**
Output failure	The battery pack output line is not connected	Connect the battery pack output line correctly according to the instructions
	Battery is empty	Charge the battery
	The battery string is dormant.	Charge or press the button
Tricycle not powering on	Loose terminals or discharged battery	Check that all battery terminals are tight and properly connected. Charge the battery fully and test the voltage before use.
Charge failure	Charger output plug	Check the connector is connected or not
	Loose connection, damaged charger, or depleted battery.	Check all battery connections and tighten if necessary. Inspect the charger for damage and replace if faulty. Fully charge the battery and test voltage.
Reduced battery capacity / shorter range	Battery aging or sulfation	Fully charge and discharge the battery several times to restore capacity. If performance does not improve, consider replacing the battery.
Battery overheating	Overcharging, poor ventilation, or internal short circuit.	Stop charging immediately, allow the battery to cool, and check for damage. Ensure proper ventilation during charging. Replace battery if overheating persists.
Battery leakage or corrosion	Physical damage or old battery	Do not use the battery. Clean terminals with a baking soda solution if minor corrosion occurs. Replace the battery if leakage is observed.

8.2 Factor influencing the range

Factors influencing the range of your electric tricycle:
· Life and state of charge of the battery.
· External temperatures.
· Tire pressure.
· The rider's weight.
· Riding style.
· Road/path conditions.
· Weather conditions.
· Frequent stops and restarts.
· Cleanliness and inertness of bearings and all moving parts.

8.3 Range optimisation

· Fully charge the battery.
· Check tire pressure.(recommended depending on body weight, load and route profile)
· Reduce the load.
· Do not ride too fast.
· Maintain a constant speed.

8.4 Long time storage

If stored for a long time(Don't use it over three months.), the battery should be stored in a dry and cool place. The battery should be stored at a temperature of 23+ and a humidity of 45%-75%.
Long-term unused batteries should be charged every 3 months.

8.5 Disposal of waste batteries

According to the battery law,we are obliged to inform you. Regarding the sale of batteries or the delivery of equipment containing batteries/rechargeable batteries/lamps,we are obliged to inform you of the following.

- Do not dispose of your old device in the household waste!
- You are legally obligated to return used batteries/rechargeable batteries/lamps as the end user.
- In the case of a removable battery/accumulator or illuminant, you must return them separately to the appropriate return system. You can return used devices/batteries/lamps to the collection points of the public waste disposal authorities.

8.6 Notices for charging

Safe charging environment

- Place the vehicle in a stable and safe location while charging, away from flammable, explosive, or high-temperature materials.
- Keep children and pets away from the vehicle, battery, and charger during the charging process.
- Do not charge in direct sunlight, heavy rain, or in damp areas.

Use the correct charger

- Only use the original charger supplied with the vehicle or a charger specified by the manufacturer.
- Do not use chargers of a different brand, model, or voltage rating. Using the wrong charger may cause fire, explosion, or permanent battery damage.

Do not disassemble the charger

- The charger contains a high-voltage circuit. Unauthorized disassembly may result in electric shock or fire.
- If the charger is damaged, stop using it immediately and contact authorized service personnel for inspection or replacement.

Ventilation and overheating

- Always place the charger in a well-ventilated area during charging.
- Do not cover the charger with clothing, boxes, or any other objects.
- If abnormal smell, smoke, or excessive temperature is detected, stop charging immediately and disconnect the power supply.

Indoor, dry use only

- Use the charger indoors in a dry environment.
- Do not expose the charger to rain, snow, or liquids.
- Ensure the charger and plugs are kept clean and dry before connecting to power.

Charging time

- Do not exceed the recommended charging time. Normally, charging should not exceed 8–12 hours depending on the battery type and capacity.
- Overcharging may reduce battery life, cause overheating, or create safety hazards.
- Battery handling
- Do not touch the battery terminals with wet hands or place metal objects across the contacts to avoid burns, short circuits, or fire.
- Ensure the battery is securely connected before charging.
- If the battery case is deformed, swollen, leaking, or has unusual odor/heat, stop using it immediately and replace with a new one.

After charging

- Disconnect the charger from the power supply first, then disconnect it from the battery.
- Allow the charger to cool before storing it.
- Store the charger in a cool, dry place out of reach of children.

9. Warning & Safety

Personal Safety

!WARNING!

- Riding an electric tricycle without protective gear, proper clothing, or a helmet may result in serious injury or death.
- Always wear protective gear, appropriate clothing, and a helmet when operating the electric tricycle.
- Ensure that protective gear and clothing do not interfere with steering, braking, or accelerating.
- Operate the electric tricycle responsibly and follow all local traffic laws and regulations.

9.1 Protective Gear and Clothing

Always wear: (See Image 6)

- Bright or reflective clothing that is easily seen by other road users.
- Clothing appropriate for current weather conditions.
- Protective gear such as pads for knees and elbows is recommended, especially for young or inexperienced riders.
- A properly fitted, ASTM or SNELL approved safety helmet must be worn at all times when operating the electric tricycle.

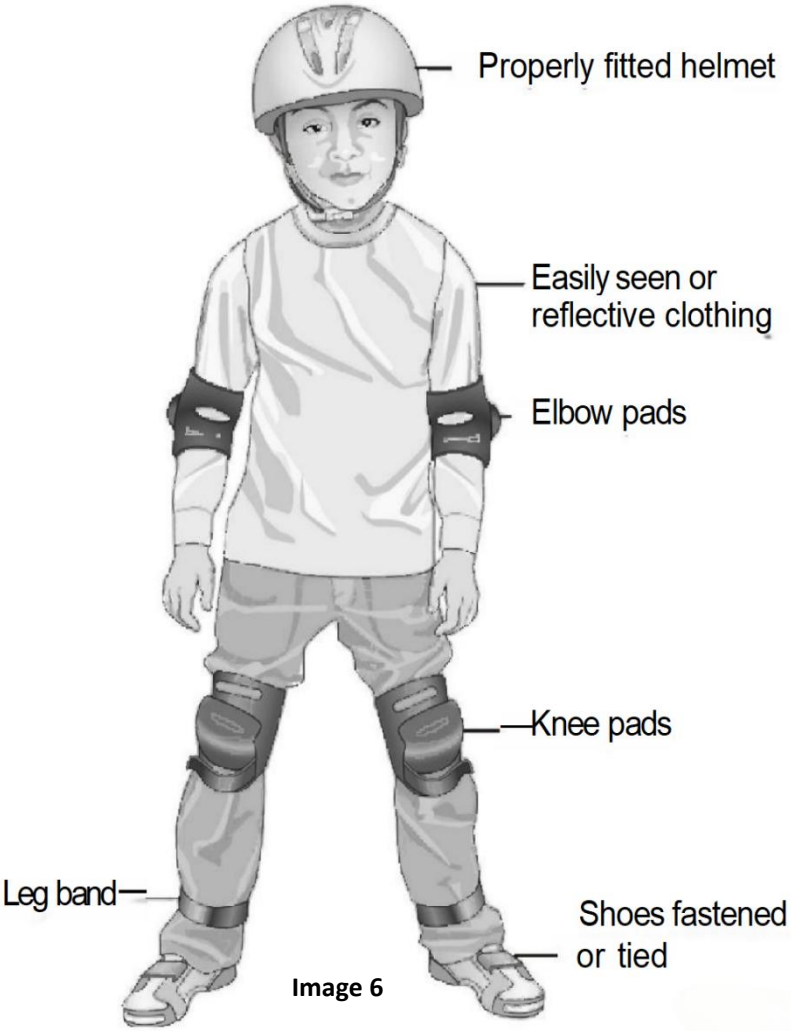


Image 6

Do not wear:

- Loose clothing parts, strings, or jewelry that may become entangled with moving parts of the electric tricycle or interfere with handling.
- Pants with loose legs. If necessary, tuck pant legs into socks or use a leg band to prevent clothing from being caught in the drive chain or wheel.
- Shoes with untied laces or unsuitable footwear such as sandals or high heels.

Helmet Use

Important! Many states and provinces have passed helmet laws for riders of motorized vehicles. Be sure to know and follow your local regulations. Even if helmet use is not legally required in your area, it is strongly recommended that all riders wear a helmet at all times when operating an electric tricycle.

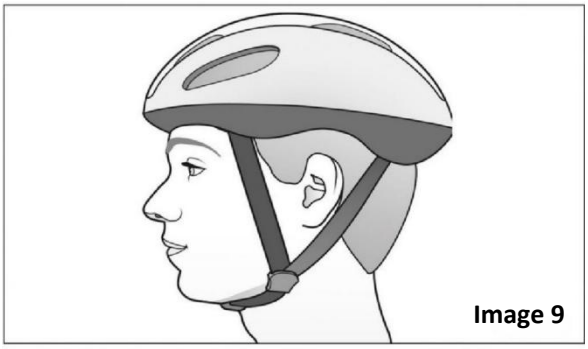


Image 9

If carrying a child passenger in a safety seat or trailer, the child must also wear a properly fitted helmet.

The correct helmet should: (See Image 9)
Be comfortable.
Have good ventilation.
Fit securely and correctly.
Cover the forehead properly.

Incorrect helmet position: (See Figure 10)
Helmet does not cover the forehead.

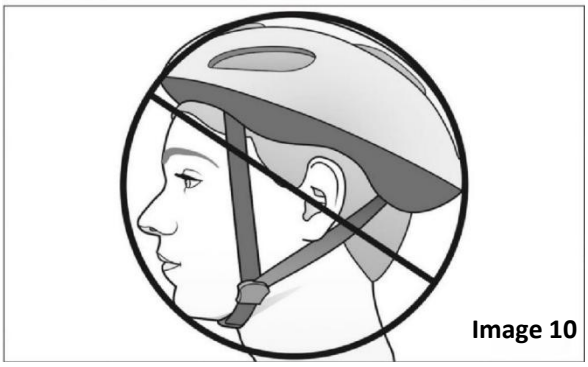


Image 10

10. Maintenance & Care

!WARNING!

- Failure to perform regular maintenance on the electric cargo tricycle may result in malfunction of critical components and could lead to serious injury, death, or property damage. Proper maintenance is essential for the safe operation and reliable performance of the electric cargo tricycle.
- The recommended intervals for inspection, lubrication, battery care, and other maintenance tasks may vary depending on load conditions, road surface, and weather exposure. Always inspect the electric cargo tricycle and perform necessary maintenance before each use, especially when carrying heavy loads.

Correct routine maintenance of your electric cargo tricycle will ensure:

- Smooth running
- Longer-lasting components

· Safer operation (especially when loaded)
· Lower operating costs

Quick pre-ride checklist (do this before every use)

Battery: charged and securely mounted; indicator shows sufficient charge for your trip.
Tires: correct pressure and no visible cuts, bulges, or severe wear.
Brakes: working correctly (no spongy lever/pedal; vehicle stops normally).
Lights & signals: headlight, taillight, brake light, indicators (if equipped) operational.
Steering: no excessive play, smooth turning.
Load & cargo: cargo secured and within rated load limit.
Controls & cables: throttle, accelerator, and brake cables/mounts not frayed or loose.
Visual check: no loose bolts, hanging wires, fluid leaks, or abnormal noises.

Cleaning & general care

- Power down & remove battery (if removable) before cleaning. Never clean with the vehicle powered on.
- Use a soft cloth and mild detergent for painted panels and plastics. Rinse/dry thoroughly.
- Do not direct high-pressure water at the motor, controller, battery, connectors, or display — pressure washers can force water into sealed electronics and bearings.
- After washing, dry electrical connectors and battery area completely. Reconnect only when dry.
- For chrome or exposed metal: apply a rust-preventive product if needed. Wipe off salt and grit promptly.
- If used in coastal/salty or muddy environments, wash more often and inspect for corrosion.
- Store under shelter — avoid prolonged rain, snow, or direct sun exposure.

Tires, wheels & load handling

- Maintain correct tire pressure for the load you carry (overloaded or underinflated tires wear faster and may overheat). Check pressure regularly.
- Inspect tires for cuts, embedded objects, or bulges. Replace worn tires promptly.
- Check wheel nuts and axle fastening for tightness before heavy loads or long trips.
- When carrying cargo, keep load balanced and within the tricycle's rated payload; avoid sudden turns at speed.

Brakes

- Check brake pad thickness and lining wear; replace if worn near the manufacturer's limit.
- For mechanical brakes: adjust cable tension; lubricate pivot points lightly.
- For hydraulic brakes: check fluid level and condition; do not attempt bleeding or major repairs unless trained — have a qualified technician service hydraulic systems.

- After cleaning, ensure rims/drum surfaces are dry to maintain braking performance.

Motors, controller & electrical system

- Inspect wiring harnesses and connectors for chafing, corrosion, and secure mounting.
- Check fuses and circuit breakers; replace with same rating/type.
- Motors: listen for unusual grinding or rubbing—these indicate bearing or internal problems.
- Avoid modifying the controller or wiring; high-voltage systems can be dangerous. Any repairs to motor controllers, high-voltage wiring, or internal electronics should be done by trained technicians.

Frame, cargo area & fasteners

- Inspect frame welds, mounting points, and cargo box for cracks, deformation, or loose rivets/bolts—especially after heavy use or impacts.
- Tighten fasteners to the manufacturer's specified torque values (if provided). If torque specs are not available, tighten securely but avoid over-torquing; use thread lockers on critical fasteners if recommended.
- Keep cargo anchoring points and tie-downs in good condition.

After heavy loads, long trips, or immersion

- After a heavy or long trip: recheck tire pressure, fasteners, brakes, and battery temperature.
- If the tricycle has been submerged or heavily water-soaked (flooding, deep puddles): do not operate until a qualified technician inspects the motor, controller, and battery. Water damage to electrical components can be dangerous.

Safety & do-not-do list

- Do not open or repair high-voltage battery packs, controllers, or sealed motor housings unless you are qualified. High voltage can cause serious injury or death.
- Do not use a charger with the wrong voltage or polarity.
- Do not ride with known critical faults (brakes, steering, battery damage, cracked frame).
- Wear appropriate PPE (gloves and eye protection) when working with batteries or cleaning chemicals.
- Record keeping — maintenance log (recommended)
- Keep a simple log with date, odometer/hours (if available), work performed, parts replaced, and next due date. Example columns:

When to get professional service

- Battery swelling, leaking, or overheating.
- Persistent electrical faults (controller/motor errors).
- Major mechanical damage (cracked frame or bent fork/axle).
- Any service involving high-voltage wiring or sealed components.

10.1 Maintenance periodic table

Maintenance cycle / Maintenance projects		project cycle	Odometer（km）				
			1000	2000	4000	8000	12000
△	control system	quarterly	I	I	I	I	I
△	braking device	monthly	I	I	I	I	I
△	Battery	monthly	I	I	I	I	I
△	Fork steering bearing	quarterly		I	I	I	I
△	braking light switch	monthly	I	I	I	I	I
△	Tires &rims	monthly	I	I	I	I	I
△	Nuts & bolts fastener	quarterly	I	I	I	I	I
△	Electrical appliances and lamps	monthly	I	I	I	I	I

11.Limited warranty and policy on replacement procedures

Your electric cargo tricycle includes the following limited warranty, which is in lieu of all other express warranties. This warranty is extended only to the initial consumer purchaser. No warranty registration is required.

Frame & structural components
The steel frame and cargo box are guaranteed against faulty materials and workmanship for 2 years from the date of purchase, provided the initial consumer purchaser retains ownership of the tricycle. If failure occurs due to defective materials or workmanship within the warranty period, the part will be repaired or replaced at our discretion.

Main components
Motor: 2 years
Controller: 2 years
Rear axle: 1 year
Gearbox: 1 year
Shock absorbers / leaf springs: 1 year
Battery: 6 months
Charger: 6 months
Dashboard / instrument panel: 6 months
Throttle: 6 months
Lighting system (headlight, tail light, turn signals): 6 months
Braking components (brake rods, brake shoes, cables, handbrake): 6 months

Normal wear-and-tear parts (such as grips, tubes, brake shoes, cables, decorative trims, rubber pads, stickers, etc.) and items marked as “no after-sales service” in the warranty table are excluded from warranty coverage.

Conditions of warranty

- This warranty applies only to normal use of the electric cargo tricycle for cargo transportation and general riding.
- The warranty does not cover damages caused by misuse, abuse, overloading, accidents, negligence, or modifications not authorized by the manufacturer.
- The warranty does not cover ordinary wear and tear, improper assembly or maintenance, corrosion, paint damage, or use of incompatible parts/accessories.
- The warranty becomes void if the tricycle is rented, sold, transferred, or modified in a way that affects safety or performance (including alteration of the frame, drivetrain, electrical system, or braking system).
- All warranty claims must be submitted with proof of purchase and shipped prepaid for inspection. Labor costs, installation, disassembly, and transportation fees are not covered under this warranty.

Notice

Specifications and components of the tricycle are subject to change without notice.

12. Common Breakdowns

This section provides guidance for identifying and resolving the most common problems that may occur during daily operation of your cargo electric tricycle. Follow the recommended solutions carefully. If the issue persists after troubleshooting, please contact an authorized service center.

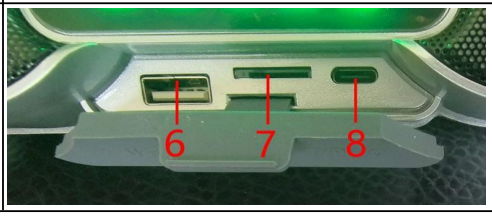
No.	Fault	fault cause	elimination methods
1	Throttle disable or speed is low	（1）low battery voltage； （2）loosen of the wire in throttle； （3）spring stuck in throttle may failed.	（1）Charge the battery fully； （2）Rewiring； （3）clean or replace the throttle.
2	Motor does not work with power on	（1）the controller is protected due to the low voltage； （2）loosen of the wire in throttle； （3）motor hub connection plug loose or damaged.	（1）Charge the battery fully； （2）rewiring； （3）call for professional or repair shop
3	Insufficient mileage for a single charge	（1）low tire pressure； （2）insufficient charging or charger failure； （3）ageing of battery.	（1）inflate the tire； （2） full charge or check the charger plug； （3）replace the battery.
4	Charger not charged	（1）charger socket off or plug losse； （2）charger fuse blew out； （3）the battery wiring off.	（1）tighten the socket and connector； （2）replace the same type of fuse； （3）welding the wiring。

5	Hard to ride and slow speed	（1）check if the brakes are blocked; （2）check the tire pressure; （3）battery low voltage; （4）lose oil in front and rear axles, or the shaft is too tight to flex.	（1）adjust the brake; （2）inflate the tire; （3）charge the battery; （4）clean with grease.
6	Noise during the ride	（1）screws and nets are loose; （2）wheels touching fork and frame; （3）chain wheel or chain grinding cover; （4）ball wear or breakage in axles.	（1）tighten loose screws and nuts; （2）adjust the wheels; （3）adjust the wheel cover; （4）replace the balls.
7	Vehicle sudden power loss while driving	（1）Loose battery cable or terminal. （2）Main fuse or circuit breaker tripped due to overload. （3）Controller overheating protection activated.	（1）Stop the vehicle safely and turn off the power. （2）Inspect all battery connections and tighten if loose. （3）Allow the controller to cool down before restarting. Avoid continuous heavy load operation. （4）Replace fuse or reset breaker if blown. （5）If problem persists, test the controller and motor at a service center.
8	Battery not charging	（1）Charger not connected properly or defective. （2）Faulty charging port or wiring. （3）Battery pack voltage too low to trigger charging. （4）Damaged or aged battery cells.	（1）Ensure charger is properly connected to both AC power and the tricycle. （2）Test charger output with a multimeter. Replace charger if no output. （3）Inspect charging port and wiring for loose or broken connections. （4）If battery pack voltage is abnormally low, attempt slow charging under supervision. （5）Replace defective batteries if charging remains impossible.
9	Motor overheat ing	（1）Prolonged driving with overload or on steep terrain. （2）Insufficient cooling due to blocked air circulation. （3）Internal motor fault.	（1）Stop the vehicle and allow the motor to cool down. （2）Avoid continuous overloading or steep climbing. （3）Inspect motor for dirt, mud, or obstruction; clean if necessary. （4）If overheating occurs repeatedly, have the motor inspected professionally.
10	Brake perform ance poor	（1）Brake shoes/pads worn out. （2）Brake cables loose or stretched. （3）Oil contamination on brake surfaces (for drum/disc brakes).	（1）Inspect brake shoes or pads; replace if worn. （2）Adjust brake cables for proper tension. （3）Clean drum/disc surfaces to remove oil or dirt. （4）Regularly check and maintain brakes for safety.
11	Steering feels heavy or unstable	（1）Tire pressure uneven or too low. （2）Front fork bearings lack lubrication or are damaged. （3）Misalignment of front wheel.	（1）Check tire pressure and adjust evenly. （2）Inspect and lubricate steering bearings. Replace if worn. （3）Ensure front wheel is correctly

			aligned and tightened.
12	Lighting or horn malfunction	（1）Blown fuse or bulb. （2）Loose or damaged wiring. （3）Switch malfunction.	（1）Replace blown fuse or defective bulb. （2）Inspect and repair loose or broken wiring. （3）Test switch and replace if faulty.
13	Cargo box or door issues	（1）Loose hinges or bolts. （2）Deformation due to heavy load impact. （3）Lock mechanism malfunction.	（1）Tighten all bolts and hinges. （2）Adjust or repair deformed panels. （3）Lubricate and repair the lock mechanism; replace if necessary.
14	Tire wear or blowout	（1）Incorrect tire pressure. （2）Overloading. （3）Driving frequently on rough roads.	（1）Maintain tire pressure at recommended levels. （2）Avoid exceeding maximum load capacity. （3）Rotate tires regularly if applicable. （4）Replace worn or damaged tires immediately.
15	Battery movement or vibration noise	（1）Insufficient padding or securing straps. （2）Loose battery hold-down bar.	（1）Ensure batteries are firmly placed in the battery compartment. （2）Use foam padding to fill gaps and prevent collisions between batteries. （3）Tighten the battery hold-down strip to keep batteries stable.
7	Other faults	When you find faults you can't solve or not mentioned above.	Call the distributor or repair shop

Preventive Maintenance Tips

- Charge batteries fully after each use; avoid deep discharge.
- Keep vehicle clean and check bolts, cables, and connections regularly.
- Lubricate moving parts (steering, bearings) as scheduled.
- Do not overload the tricycle beyond rated capacity.
- Store the vehicle in a dry, ventilated area.
- Service the tricycle at authorized workshops periodically.

Bluetooth Speaker Y08 Function Operation Manual		
一. Bluetooth mode（Bluetooth name：Y08）		
1. Bluetooth version：Bluetooth5.1，support HSP、HFP、A2DP、AVRPC protocol		
二. TF block，Disk model		
1. After powering on, insert a TF card or USB drive to automatically enter playback mode. The device retains memory when powered off.		
三. FM Radio Mode		
1. Press and hold the power button to enter FM radio mode after turning on.,		
2. Double-tap the power button in recording mode to enter auto-search mode.		
4. After searching, press and hold the previous station, press and hold the next station, press and hold V-to lower the volume, press and hold V+ to raise the volume		
四.Key function definition		
	Press and hold	Long press
1	Short press to sound the horn,	Long press to switch sound mode
2	Press and hold the previous track	Long press the volume down button
3	Press and hold to next track	Long press volume up
4	Press and hold to play/pause. Press and hold to answer or end calls.	Long press to select lighting mode: Rhythm/Rotation/Slow Flash (loop selection). Long press to return to last call. In incoming mode, long press to reject calls.
5	Press and hold to switch between TF, USB, and FM modes. Double-tap in FM mode to auto-search channels.	Press and hold to turn audio on and off
6	USB	
7	TF	
8	TYPE-C（5V）	
		

Guidelines for Determining Whether to Change Oil in the Rear Axle Gear Oil Tank and Dump Tank (Hydraulic System)

1. Color Change
New oil: Light amber, clear and bright.
Normal: Pale yellow, clear and bright.
Caution warranted: Turns deep brown or dark brown.
Must replace: Blackish-brown, black and cloudy, severely oxidized.

2. Clarity, Cloudiness, and Emulsification
If the oil turns milky white or cloudy white water ingress has caused emulsification. Replace immediately, and also inspect the oil cylinder and hoses to locate the water entry point.
If a large number of fine black particles are suspended in the oil, making it look hazy and not translucent replace the oil.

3. Odor
New oil: Faint petroleum smell.
If you smell a burnt, acrid, or sour rancid odor: The oil has undergone high-temperature oxidation and must be replaced.

4. Impurities in the Oil (White Paper Test)
Drop one drop of hydraulic oil onto a white paper towel:
Oil stain spreads evenly with no black spots normal.
Many small black particles or metallic powder spots appear on the paper wear-related contaminants are present. Recommend oil change, and also inspect the hydraulic pump and cylinder for wear.5. Equipment Performance (Operational Signs)
The lift bed raises slower than usual, jerky or sluggish operation, increased noise, abnormally high oil temperature.
In winter, low-temperature operation is noticeably more sluggish than when the machine was new.
If any of the above symptoms occur, prioritize sampling and inspecting the oil before deciding on a change.

Recommended Change Interval for Rear Axle Gear Oil Tank

Initial / Break-in Change: Change the gear oil after 3 months or 1,000–2,000 km of operation, whichever comes first.
Oil quantity: Approximately 800 mL.
Oil specification: GL-5 85W/90 (gear oil).

Operating Instructions for Hydraulic Power Unit

1. Installation and Connection
Ensure the hydraulic power unit is installed and connected correctly. Pay attention that the voltage of the motor and the directional control valve matches the power supply. When adding oil, please filter the hydraulic oil. The cylinder, hoses, and other components must be kept clean.

2. Preset Pressure
The working pressure of the hydraulic power unit has been adjusted at the factory. Please do not adjust it arbitrarily.

3. Duty Cycle (S3 Operation)
This power unit is designed for an S3 duty cycle and cannot be operated continuously.
Duty cycle: 30 seconds on, 270 seconds off.

4. Hydraulic Oil Viscosity Selection by Season
Winter: HM32
Spring and Autumn: HM46
Summer: HM68

Recommended general use: 32 hydraulic oil (ISO VG 32) is recommended.

5. Oil Change Interval
Hydraulic oil must be changed every 3 months of use.

LLAMA
TRUCK

sales@llamatruck.com

+1 818-617-6999

www.llamatruck.com

@LLama Truck

@llama_truck

@LLAMA TRUCK

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