

PULSAR/PRO

Model: PPGX2V3600

Electric Off-Road Utility Tricycle OPERATOR'S MANUAL



Caution:

- Before using your tricycle, please read this manual carefully to understand proper use.
- Keep this manual with the tricycle.



WARNING: This product can expose you to chemicals including lead and phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



DO NOT RETURN TO STORE!

HAVE QUESTIONS OR NEED SERVICE?



1-866-591-8921



support@pulsar-products.com

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Introduction

Thank you for choosing the **PULSAR PRO Electric Off-Road Utility Tricycle**. This manual contains important information for the safe operation, inspection, and maintenance of your vehicle. Please read it carefully and ensure you understand all instructions before operating the vehicle. Proper use and regular maintenance will help improve safety, maintain performance, and extend the vehicle's service life.

For questions or assistance, contact Customer Support at **866-591-8921 (Monday-Friday)** or **support@pulsar-products.com**. Authorized service centers are also available to provide technical and after-sales support. This manual is a permanent part of the vehicle and must remain with it if resold or transferred. The specifications and information in this manual reflect the latest product details at the time of publication. PULSAR PRO reserves the right to make changes without prior notice.

We hope your vehicle delivers reliable performance and many enjoyable off-road experiences.

Safety Warnings and Notices

WARNING: Save This Manual for Future Reference

This manual contains important information regarding the safety, operation, maintenance, and storage of this product. Before use, you must read and fully understand all cautions, warnings, instructions, and product labels. Failure to do so could result in serious personal injury and/or property damage.

Safety Definitions

 This safety alert symbol appears with most safety statements. It means to pay attention and be alert, your safety is involved! Please read and abide by the message that follows the safety alerts symbol.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

Failure to follow the instruction may result in the damage to your tricycle and other property.

Safety Instructions

Important Notices

NOTICE

Please read this Operation and Maintenance Manual carefully before using the vehicle.

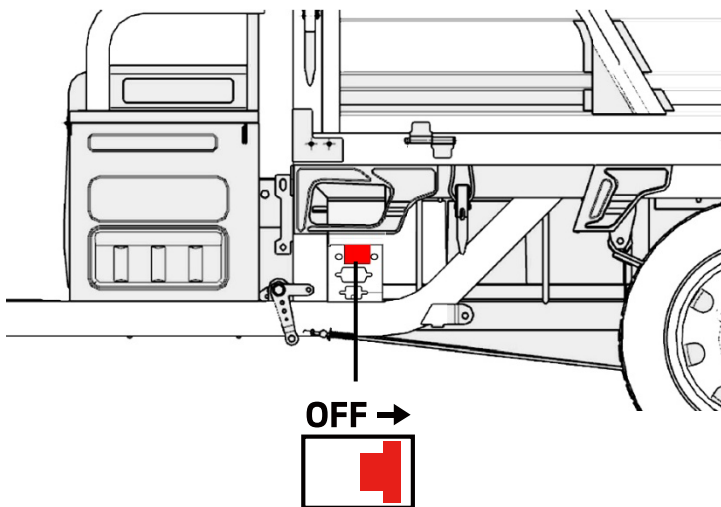
- **Off-Road Use Only:** This vehicle is not designed or approved for use on public streets, roads, or highways. Operate only on private property.
- Always operate the vehicle at a safe speed and never exceed the rated load capacity.
- Avoid operating on deep potholes, heavy mud, unstable ground, or loose gravel to reduce the risk of loss of control or vehicle damage.
- This manual is an essential part of the vehicle. If the vehicle is sold or transferred, it must be provided to the new owner.
- This manual is protected by copyright. No portion may be reproduced without prior written permission from the company.

Towing Instructions

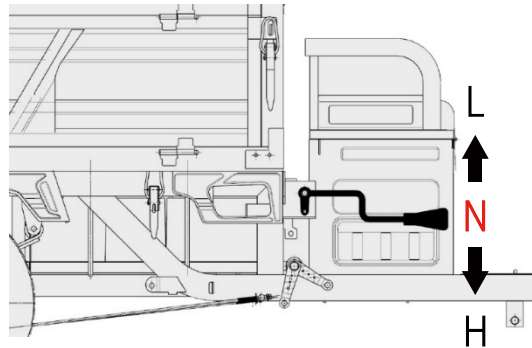
CAUTION

If the vehicle must be towed, observe the following guidelines:

1. Verify that the **battery breaker** located on the left side of the vehicle is in the **OFF** position.



2. Shift the **gear selector lever** on the right side of the vehicle to the **N (Neutral)** position to mechanically disengage the motor from the drivetrain.



WARNING

Do **NOT** tow the vehicle while it is in "L" (Low) or "H" (High) gear, as this will cause serious damage to electrical and drivetrain components.

Bring the vehicle to a complete stop before shifting gears. Do not attempt to shift while the vehicle is moving, as this will damage the drivetrain.

If the gear does not engage smoothly, slightly move the vehicle forward or backward, then stop and try again until the gear is fully engaged.

After shifting, ensure the gear is properly engaged before operating the vehicle.

3. Only tow the vehicle after completing the two steps above.
4. The recommended towing speed must **not exceed 22 mph**.

Safe Riding Rules

NOTICE

This Electric Off-Road Utility Tricycle is designed for off-road use only on private property such as farms, ranches, worksites, and large estates. This vehicle is not designed, manufactured, or intended for use on public streets, roads, or highways, and does not conform to Federal Motor Vehicle Safety Standards (FMVSS).

The vehicle is delivered fully assembled, inspected, and ready for operation. No customer assembly is required. However, always perform a pre-operation inspection and follow recommended maintenance procedures to help ensure safe operation. Operators must be physically capable of safely controlling the vehicle.

Never operate the vehicle under the influence of alcohol, drugs, or any substance that may impair judgment or reaction time.

Safety Instructions

Before operating the vehicle, inspect it to confirm that all components are in proper working condition. Proper inspection helps reduce the risk of accidents and equipment damage.

- **Authorized Areas:** Operate this vehicle only on private property or in designated off-road areas.
- **Speed Control:** Always operate at safe speeds appropriate for the terrain, visibility, and load. Excessive speed significantly increases the risk of rollovers, loss of control, and severe injury.
- **Situational Awareness:** Maintain constant alertness. Watch for obstacles, uneven terrain, pedestrians, and wildlife.
- **Operator Posture:** Keep both hands firmly on the handlebars and both feet securely always positioned on the footboard while the vehicle is in motion.
- **Load Limits:** Never exceed the Maximum Rated Load Capacity. Overloading compromises braking and steering, which may lead to loss of vehicle control.
- **Hazardous Terrain:** Use extreme caution and avoid steep slopes, unstable ground, deep mud, or loose gravel whenever possible.
- **Proper Attire:** Wear appropriate safety gear. Do not wear loose clothing, jewelry, or dangling items that could become entangled in moving parts.

Vehicle Modifications

WARNING

UNAUTHORIZED MODIFICATIONS

Any unauthorized modification of this vehicle or replacement of original components may compromise operational safety and will void the warranty. Users must strictly adhere to all local regulations regarding off-road vehicle equipment and use.

The company assumes no liability for damages or injuries resulting from any modifications.

Loading Cargo

WARNING

IMPROPER LOADING CAN CAUSE STRUCTURAL DAMAGE OR LOSS OF CONTROL.

Load Distribution & Stability

Proper weight distribution is critical for maintaining vehicle stability.

Center of Gravity: Position cargo toward the front-center of the cargo bed. Placing loads too far to the rear reduces front-wheel traction, which significantly compromises steering and stability.

Secure Your Load: All cargo must be firmly secured to the vehicle with tie-down straps. Shifting loads during transit can cause a sudden loss of control.

Tire Pressure: Adjust tire pressure based on total payload and terrain conditions (refer to the specifications section).

Payload Capacity & Gear Selection

Payload Limit: NEVER exceed the maximum load capacity of 1100lbs. Overloading creates hazardous driving conditions and may cause permanent component failure.

Mechanical Gear Selection: When carrying heavy loads or climbing steep hills, you MUST use the L (Low/High Torque) gear (Speed ratio 1:30) to provide necessary power and protect the motor.

Braking Distance: Carrying cargo increases your stopping distance. Avoid sudden braking, as it can cause the wheels to lock and the vehicle to become uncontrollable.

Operating Restrictions

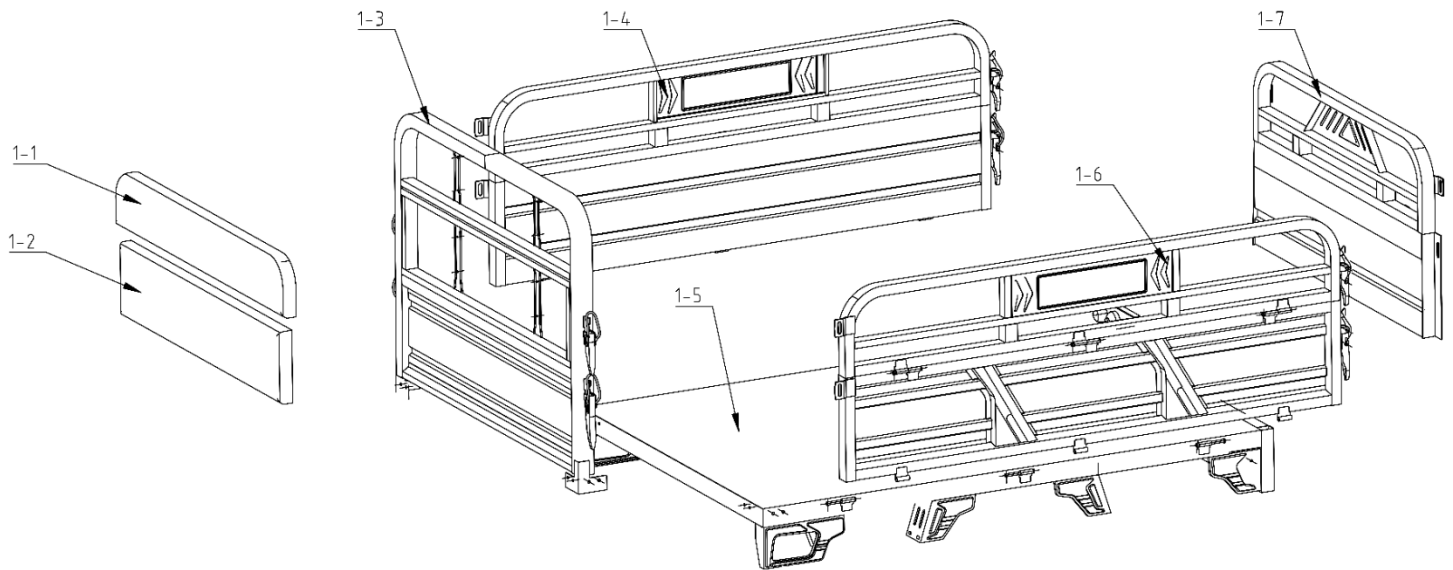
Slope Safety: On long downhill, do not hold the brakes constantly to avoid overheating the shoes and hubs. Use the 3-Speed Mode Switch (Position 1 or 2) to engage motor braking.

DISCLAIMER OF LIABILITY

The manufacturer and distributor shall not be held liable for any injuries, vehicle damage, or legal consequences resulting from overloading (exceeding 1100lbs), improper cargo distribution, or failure to secure loads according to these guidelines. The operator assumes all risks associated with cargo transportation and operation in off-road environments.

Components

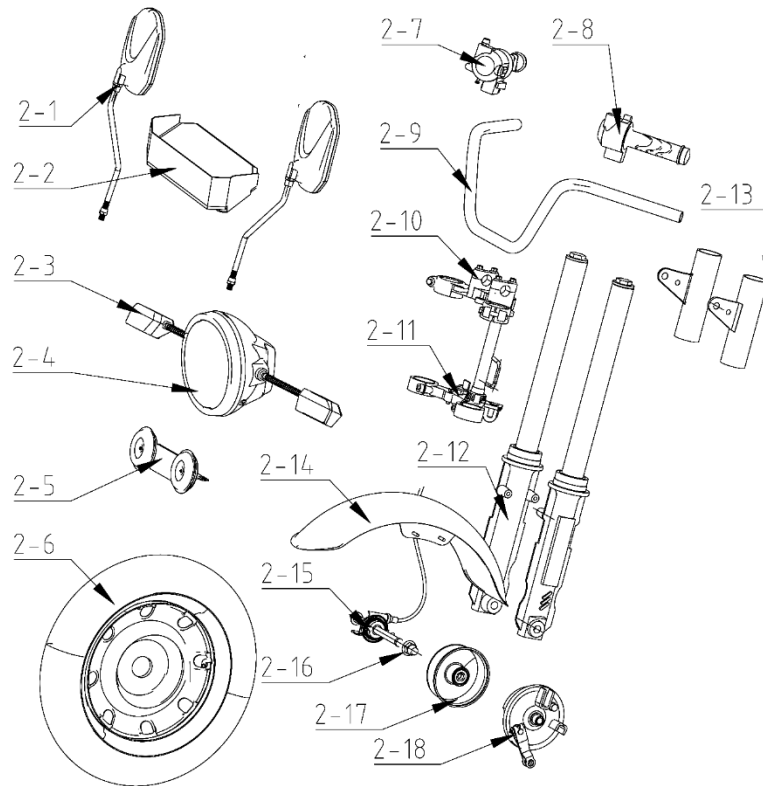
1. Cargo Bed



Item	Description	Qty
1-1	Upper Backrest	1
1-2	Lower Backrest	1
1-3	Front Backrest Assembly	1
1-4	Right Side Door & Guardrail	1
1-5	Cargo Bed Floorboard	1
1-6	Left Side Door & Guardrail	1
1-7	Tailgate	1

Components

2. Controls & Front End

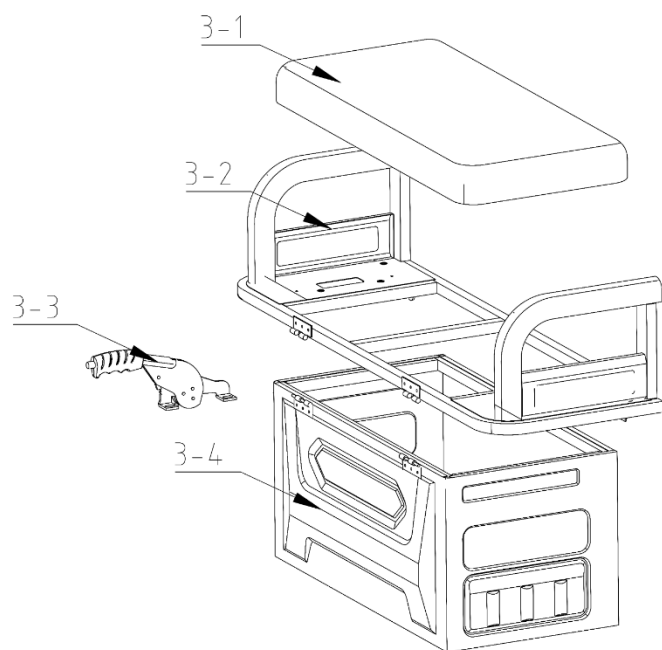


	Description	Qty
2-1	Rearview Mirrors	1
2-2	Data Display	1
2-3	Front Turn Signals	1
2-4	Headlight	1
2-5	Front Horn	1
2-6	Front Tire	1
2-7	Right Handlebar Switch Assembly	1
2-8	Left Handlebar Switch Assembly	1
2-9	Handlebars	1

Item	Description	Qty
2-10	Upper Steering Plate	1
2-11	Lower Steering Plate	1
2-12	Front Shock Absorbers	1
2-13	Headlight Mounting Brackets	1
2-14	Front Fender	1
2-15	Speedometer & Sensor Assembly	1
2-16	Front Wheel Axle Assembly	1
2-17	Front Wheel Interchangeable Hub	1
2-18	Front Brake Assembly	

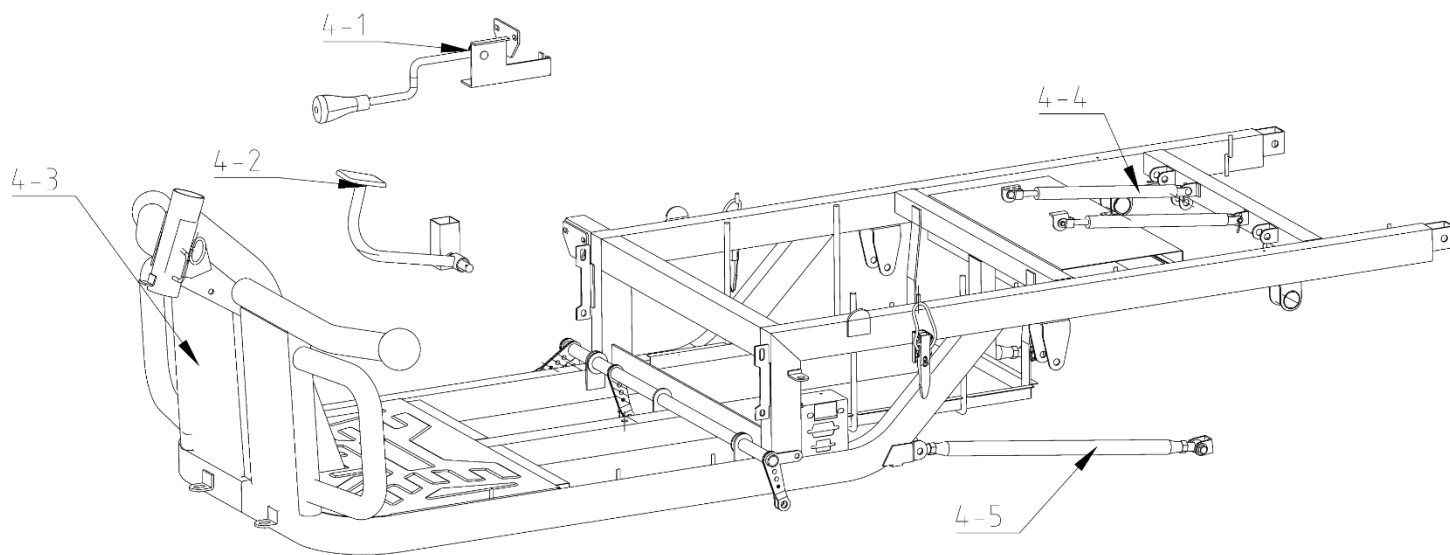
Components

3. Seating & Handbrake



Item	Description	Qty
3-1	Driver's Seat Cushion	1
3-2	Seat Frame Assembly	1
3-3	Handbrake & Cable	1
3-4	Under-Seat Storage Box Assembly	1

4. Chassis & Drivetrain

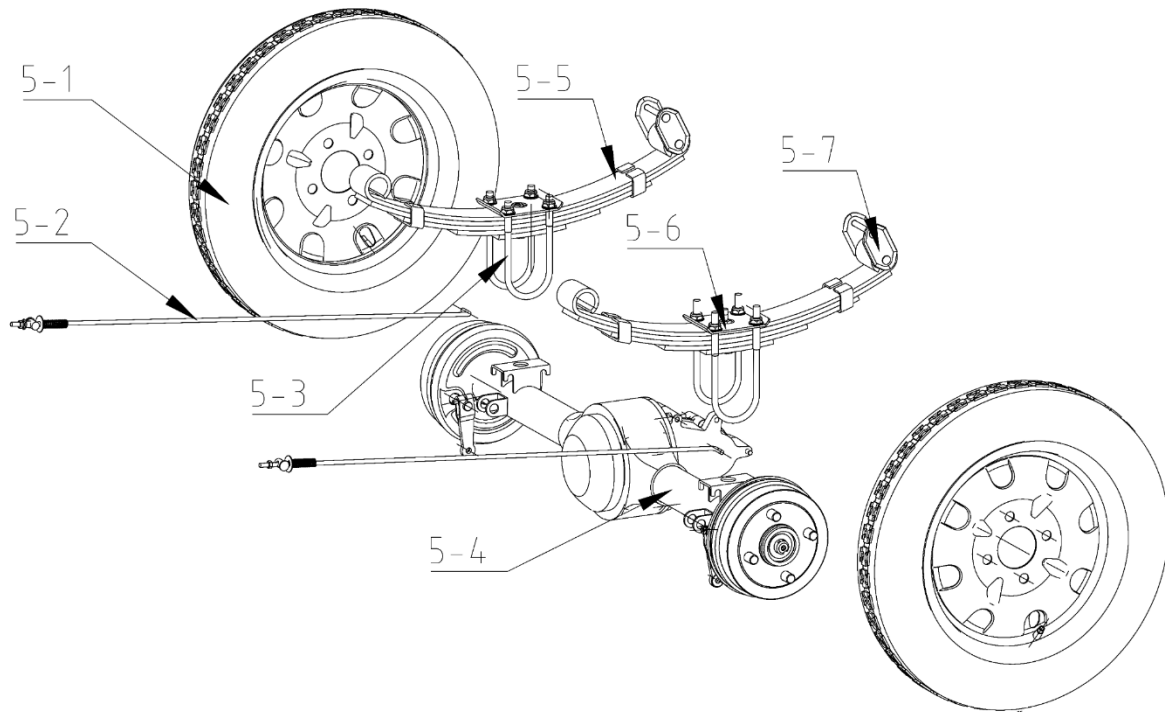


Item	Description	Qty
4-1	Gear Selector Lever & Linkage Cable	1
4-2	Brake Assembly	1
4-3	Main Frame Assembly	1

Item	Description	Qty
4-4	Cargo Bed Gas Struts	2
4-5	Rear Axle Adjustable Struts	2

Components

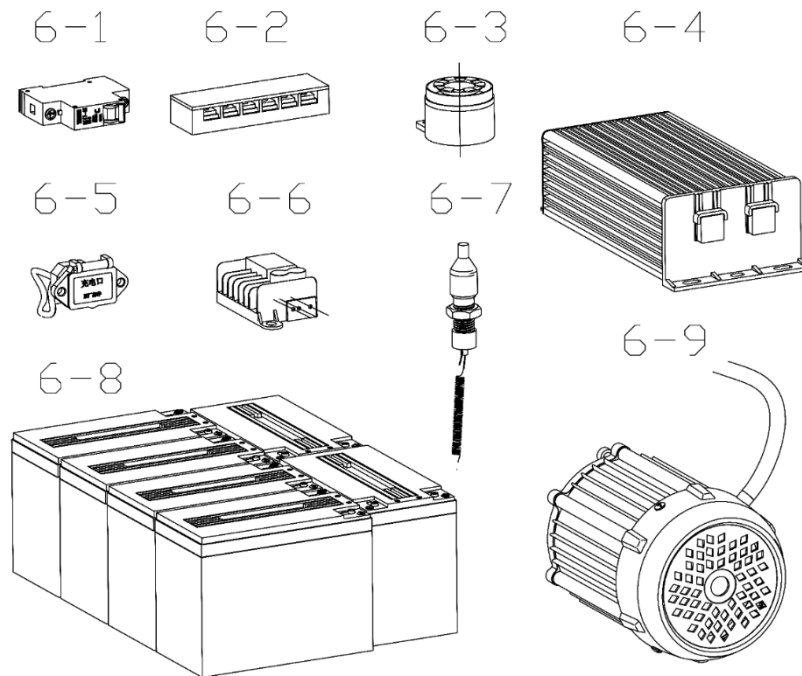
5. Rear Axle & Suspension



Item	Description	Qty
5-1	Rear Tire Assembly	2
5-2	Rear Brake Rods	2
5-3	U-Bolts	4
5-4	Rear Axle Assembly	1
5-5	Rear Leaf Springs	2
5-6	Leaf Spring Clamping Plates	2
5-7	Leaf Spring Rear Shackles	2

Components

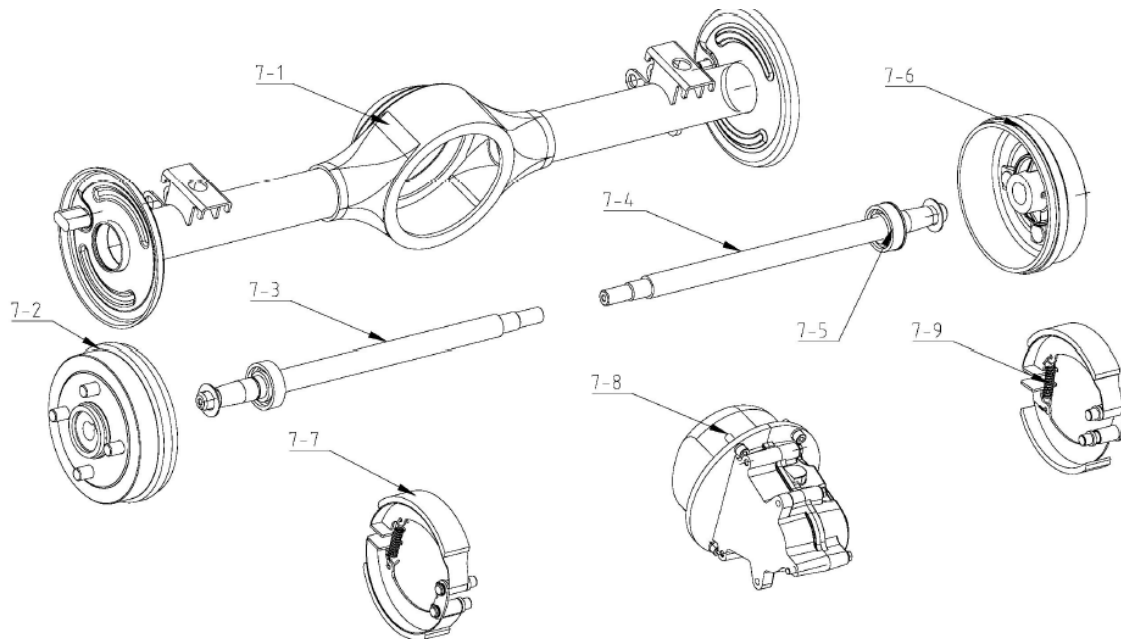
6. Electrical & Powertrain



Item	Description	Qty
6-1	Circuit Breaker (MCB) 65A	1
6-2	Terminal Block (4506)	1
6-3	Reverse Alarm	1
6-4	Controller Assembly (72V 58A)	1
6-5	Charging Port (with 3mm ² Wiring)	1
6-6	DC-DC Converter (10A)	1
6-7	Brake Wiring	1
6-8	Lead-Acid Battery (72V 45Ah)	1
6-9	Drive Motor (72V 1500W)	1

Components

7. Rear Drivetrain Details



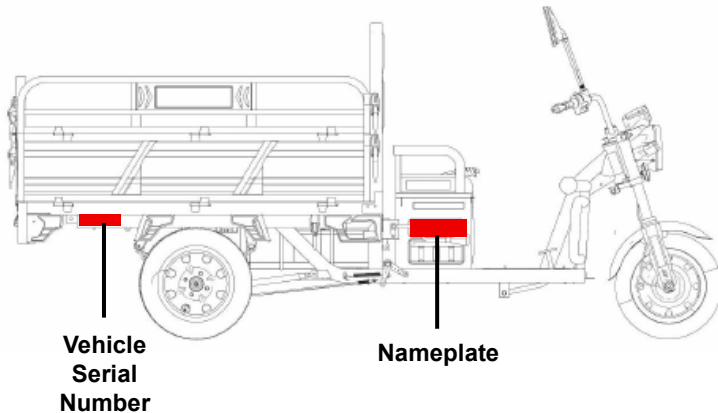
Item	Description	Qty
7-1	Rear Axle Housing Assembly	1
7-2	Left Brake Drum	1
7-3	Left Axle Shaft Assembly	1
7-4	Right Axle Shaft Assembly	1
7-5	Axle Bearings	1
7-6	Right Brake Drum	1
7-7	Brake Shoes	1
7-8	Gearbox Assembly	1
7-9	Brake Shoe Return Spring	1

Preparation

Vehicle Identification

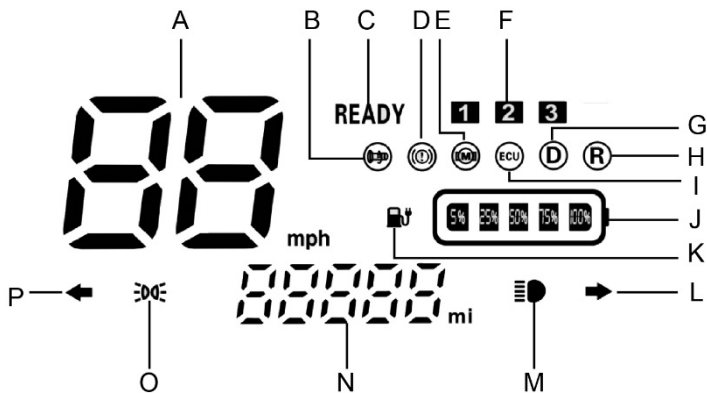
Vehicle Serial Number: Stamped on the right longitudinal beam of the rear frame.

Nameplate: Located on the right side of the under-seat storage box.



Data Display

Function Description



- A. Speedometer:**
Displays current driving speed (in mph).
- Parking Mode:**
Indicates the controller is in electronic parking mode, the letter "P" is displayed.
(Note: This is not a mechanical brake).
- B. Throttle Fault Light:**
Illuminates to indicate a sensor abnormality in the throttle handle.
- C. Ready Indicator:**
Indicates the vehicle is powered on and ready to drive.
- D. Parking Brake Indicator:**
Illuminates when the parking handbrake is engaged.
- E. Motor Sensor Abnormality:**
Illuminates to indicate a sensor abnormality within the motor.
- F. Speed Mode Indicator:**
Displays the selected speed mode: 3 (High Speed), 2 (Medium Speed), 1 (Low Speed).
- G. Forward (Drive) Indicator:**
Indicates the vehicle is in Forward gear.
- H. Reverse Indicator:**
Indicates the vehicle is in Reverse gear.
- I. Controller Abnormality:**
Illuminates to indicate a malfunction in the controller.
- J. Battery Level Indicator:**
Displays the battery's state of charge (SOC). For lead-acid batteries, the level is shown via a real-time floating display based on current voltage.
- K. Charging Indicator:** After the data display lights up, the indicator will turn off. When the vehicle's battery level is low, it will illuminate to indicate that charging is required.
- L. Right Turn Signal:**
Flashes when the right turn signal is activated.
- M. High Beam Indicator:**
Illuminates when the high beam headlight is active.
- N. Odometer:**
Displays current trip distance and total accumulated mileage in miles.
- O. Position Light Indicator:**
Illuminates when the position lights are switched on.
- P. Left Turn Signal:**
Flashes when the left turn signal is activated.

Preparation

NOTICE

Automatic Electronic Parking:

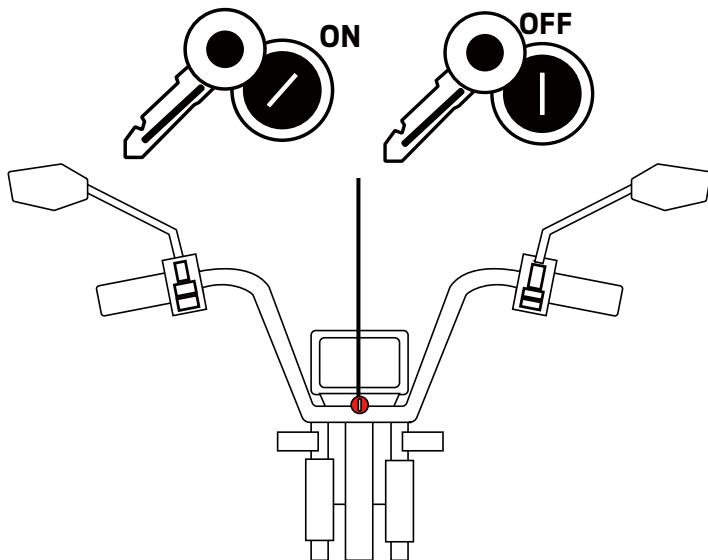
The **P (Parking)** indicator illuminates when the controller enters electronic parking mode. This mode **auto-activates after 40 seconds of idleness** to prevent accidental acceleration.

CAUTION

Electronic "P" Mode: The electronic "P" (Park) mode shown on the data display is designed **ONLY** to prevent accidental acceleration (misoperation). It does **NOT** mechanically lock the wheels.

Prevent Rolling: To prevent the vehicle from rolling, you **MUST** engage the mechanical parking brake lever every time you park.

Key Switch



The **Key Switch** is located below the instrument panel. The switch must be turned to the **ON** position before operating the vehicle.

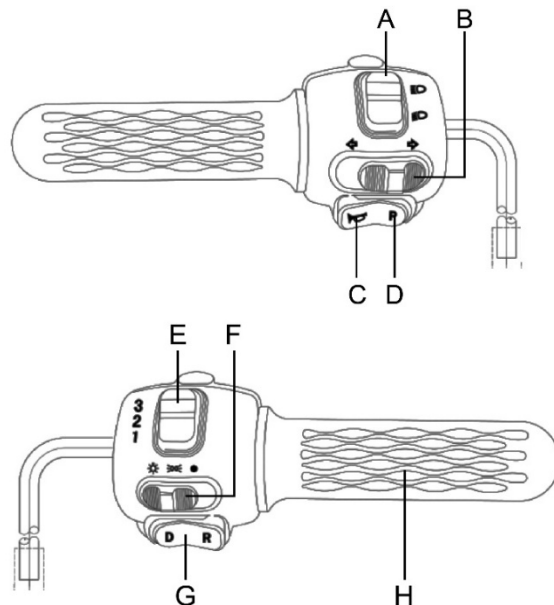
Key Position OFF:

Power Disconnected. The motor is disabled and indicator lights are off. Key can be removed.

Key Position ON:

Power Connected. The motor is ready to start, and indicator lights are illuminated. Key cannot be removed.

Handlebar Control Switches



A. Dimmer Switch:

Toggles between High Beam and Low Beam.

B. Turn Signal Switch:

Controls the left and right indicators.

C. Horn Button:

Sounds the vehicle horn.

D. Release Auto-parking Button:

Press to disable the **"Automatic Electronic Parking"** (which automatically activates after 40 seconds of inactivity).

E. 3-Speed Mode Switch (Electronic):

Located on the handlebar, this switch limits the electric motor's output: **3 (High Speed)**, **2 (Medium Speed)**, **1 (Low Speed)**. You can toggle this switch while driving to adjust your speed limit. This feature is distinct from the H (High) and L (Low) settings of the Gear Selector Lever (see page 13).

F. Headlight Switch:

Operates the Headlights, Position Lights, and Off mode.

G. Drive/Reverse Switch (D/R):

Selects the vehicle's driving direction.

H. Throttle Grip:

Controls the speed and acceleration.

Gently twist the throttle to move the tricycle.

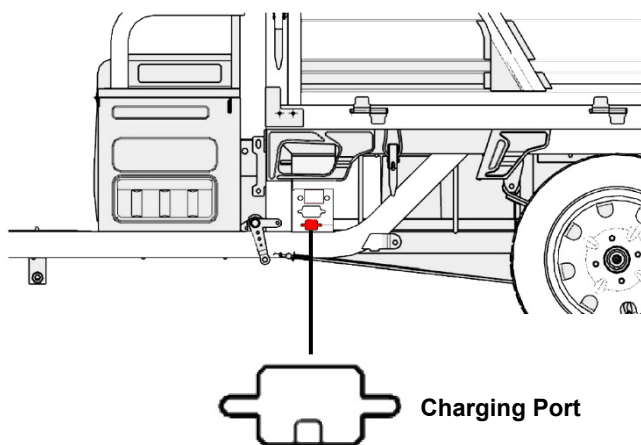
Preparation

WARNING

When turning or changing lanes, the turn signal must be activated until the maneuver is fully completed. Do not switch off the turn signal until you have safely finished the turn or lane change.

Battery and Charger

The vehicle is compatible with 72V Lead-acid batteries. Individual battery units are connected in series or parallel to form a battery pack that powers the entire vehicle.



Charger Operation

1. Locate the Charging Port. Ensure the port is clean and dry before connecting.
2. Insert the output plug of the charger (Included) into the vehicle's charging port.
3. Plug the input power cord into a standard household AC outlet.

Red Light: Power is connected, and the battery is currently charging.

Green Light: After 7–8 hours, the light will turn green, indicating the battery is nearly full.

4. Completion (Trickle Charge):

For optimal battery performance, it is recommended to continue charging for an additional 1–2 hours (trickle charge) after the green light illuminates. Once finished, disconnect the charger from the power outlet first, then from the vehicle.

WARNING

Failure to follow these safety guidelines may result in damage to the vehicle, fire, or personal injury.

Specification Matching: Ensure the battery voltage and current match the charger specifications. The polarity of the charger output plug must align with the battery pack socket; otherwise, both components will be damaged.

Charger Environment: The charger is not waterproof. Store and use it only in a dry, ventilated environment. Protect it from moisture, impact, and heavy drops.

Battery Safety: Do not place the battery in an airtight container or near open flames. Never submerge the battery in water or dispose of it in a fire. Avoid direct exposure to prolonged sunlight.

Damage Inspection: If the battery casing is found to be cracked or leaking, the battery must be replaced immediately.

Temperature Control: The optimal charging temperature is between 10°C and 30°C. Ensure good ventilation. Charging at high temperatures reduces efficiency and may lead to lead-acid sulfation or overheating, permanently damaging the battery.

Professional Service: If the charger or battery fails, it must be inspected and repaired by authorized professional technicians only.

Environmental Disposal: Do not discard old or depleted batteries in fire or water. They must be recycled in accordance with local environmental laws and regulations.

WARNING

Risk of Electric Shock: NEVER touch or attempt to disassemble the charger while it is in use. The charger contains high-voltage internal components; unauthorized contact may result in severe electric shock or fatality.

Fire and Explosion Prevention: The charger generates heat during operation. It must be used in a well-ventilated area. DO NOT place the charger on or near flammable or explosive materials, such as carpets, wooden flooring, or volatile substances, to prevent fire, explosion, and potential casualties.

Charging Time Limit: If the charger indicator remains RED for an unusually long period (exceeding 8 hours) without turning green, stop charging immediately. Disconnect the power and contact customer service for inspection.

Preparation

Operation

Tire Pressure

Maintaining correct tire pressure is critical for optimal vehicle stability, ride comfort, and maximum tire service life.

Recommended Cold Tire Pressure: **36–38 PSI (250–260 kPa)**

Safety Guidelines

Wear and Traction:

Operating the vehicle with excessively worn tires is hazardous. Worn treads significantly reduce traction, stability, and steering control.

Pressure Impacts Irregular Wear:

Incorrect tire pressure causes abnormal tread wear and can lead to safety-related incidents.

Under-inflation:

Low pressure may result in tire damage, overheating, or the tire debonding (separating from the rim). It also reduces the vehicle's driving range.

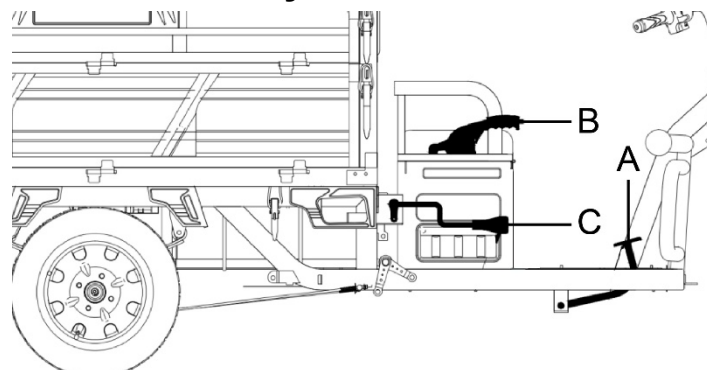
Inspection Procedures

Cold Check: Always measure tire pressure when the tires are "cold" (before the vehicle has been driven).

Visual Inspection: Check for cuts, punctures, or embedded objects such as nails. Inspect for any sidewall bulges or deformations.

Professional Service: If any damage is detected, contact customer service immediately for repair or replacement.

Pre-Ride Safety Checklist



Pre-Ride Inspection

Before you hit the road, take a few minutes to check your tricycle. This simple routine helps prevent breakdowns and ensures a safe ride.

Please check the following items:

Foot Brake (A): Step on the brake pedal. It should feel firm and provide strong resistance. If it feels "spongy" or goes all the way to the floor, do not drive. Step on the brake pedal and check if the brake light turns on. This also ensures the motor safety cut-off is working.

Parking Brake (B): Pull the parking brake lever to ensure it locks the wheels securely. Make sure you can release it fully before driving.

Battery: Make sure you have enough charge for your trip.

Motor & Power: Turn the vehicle on to ensure the motor and controller are responding correctly.

Tires: Check for proper air pressure (36–38 PSI) and look for any bald spots or cracks.

Lights & Horn: Test your headlight, taillight, turn signals, and horn.

Steering: Turn the handlebars left and right to make sure they move freely and feel stable.

Shifting Gear Selector Lever (C): Shift the gear lever up and down to ensure shifting is smooth. If it feels stuck or loose, do not drive. This is a mechanical gear box adjustment:

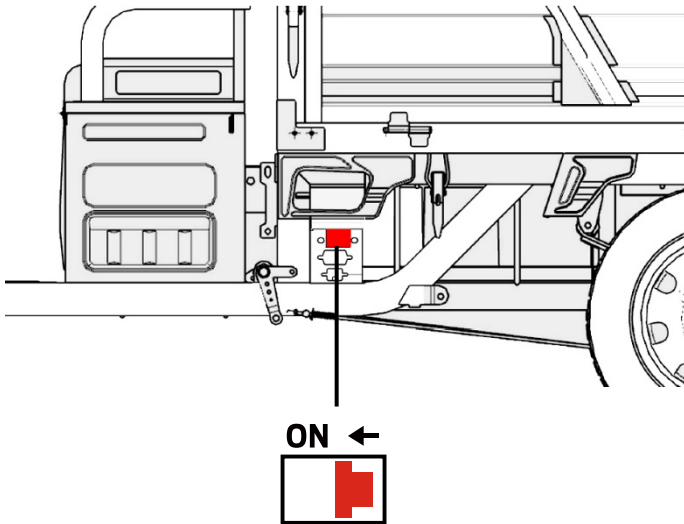
H (High): Standard driving mode for normal roads.

L (Low): "Climbing Mode." Use this for steep hills or very heavy loads. Unlike the 3-speed switch, you **MUST** bring the vehicle to a complete stop before moving the Gear Lever.

Loose Parts: Check for any loose bolts, nuts, or parts that look like they might fall off.

Operation

Driving & Parking



Starting the Vehicle

Power On: Ensure the main battery breaker shown in the illustration is switched to the ON position. Insert the key into the key switch (page 11) and turn it to the ON position. The data display (page 10) will light up.

Release Parking Brake (page 13-B): Lower the parking brake lever completely.

Unlock "P" (Automatic Electronic Parking) Mode (page 11): * To start driving, you must step on the foot brake pedal once OR press the "Release Auto-parking Button" located on the left handlebar (page 11-D).

The "P" icon on the data display will disappear, and the "READY" light will turn on.

Note: If the "READY" light is not on, the vehicle will not move.

Go: Gently twist the throttle grip (page 11-H) downward

Parking the Vehicle

Stop: Bring the vehicle to a complete stop on flat ground.

Power Off: Turn the key in the key switch (page 11) to the OFF position and remove it.

Secure the Vehicle: Pull the parking brake lever (page 13-B) up firmly to lock the wheels.

Driving Tips & Gear Selection

Mechanical Gear Selector Lever

This lever controls the rear axle gearbox to change power output.

H (High): Standard driving mode for normal roads.

N (Neutral): Used only when the vehicle needs to be towed or pushed.

L (Low): Use this for heavy loads or climbing steep hills.

You **MUST** come to a complete stop before moving the Gear Lever to avoid damaging the transmission.

If the gear does not engage smoothly, **slightly move the vehicle forward, then stop and try again** until the gear is fully engaged.

Braking System

This vehicle features a linked braking system (one pedal brakes all three wheels).

Normal Braking: Gradually step on the foot brake pedal to slow down.

Emergency Stop: In a dangerous situation, turn the key switch to the OFF position immediately while applying the foot brake.

Avoid Sudden Braking: Sudden braking can cause the wheels to lock and make the vehicle hard to control, especially on wet or loose surfaces.

Uphill & Downhill Driving

Climbing (Upbeat): For slight inclines, use the default "H" (High) gear. For steep or long hills, shift the mechanical gear lever to "L" (Low/High Torque) for extra power.

Downhill Safety: * Do not hold the foot brake constantly to avoid overheating the brake shoes and hubs.

Use Motor Braking: Switch the electronic speed mode to "1" or "2" to let the motor help slow the vehicle.

Apply the foot brake intermittently (pump the brakes) to manage speed safely.

Operation

Turning

Release the throttle before entering a turn to prevent excessive speed.

Keep your right foot ready on the foot brake pedal for safety.

Slowly and safely navigate through the curve.

Reversing

Press the "R" button on the right handlebar.

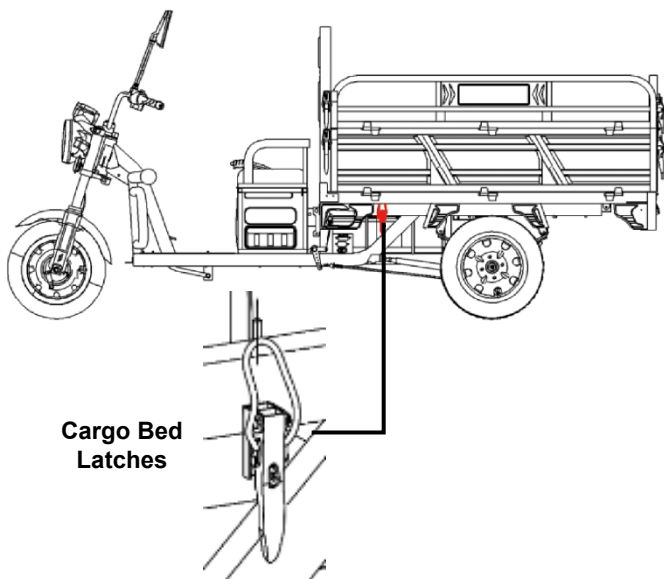
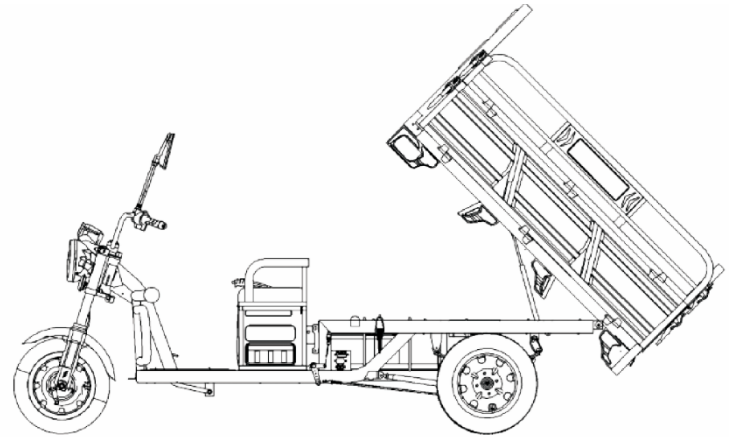
A "beeping" sound will alert others that you are reversing.

Gently twist the throttle to move backward.

Raising and Lowering the Cargo Bed

The cargo bed can be raised to unload materials or to access components located beneath the bed.

1. Rotate the latches on both sides of the cargo bed upward to release the locking hooks.
2. Grasp the front edge of the cargo bed frame firmly with both hands.
3. Lift the cargo bed upward. The gas strut will assist the lifting motion and support the bed at the raised position.
4. Once raised, the cargo bed allows access to electrical components and the battery compartment if inspection or maintenance is required.



⚠ WARNING

Before raising or lowering the cargo bed, make sure the parking brake is fully engaged and the vehicle is on level ground to prevent unintended movement.

Keep hands and fingers clear of pinch points while raising or lowering the cargo bed.

Do not operate or move the vehicle while the cargo bed is raised.

Lowering the Cargo Bed

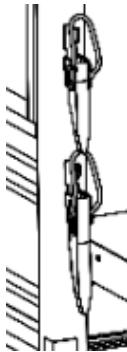
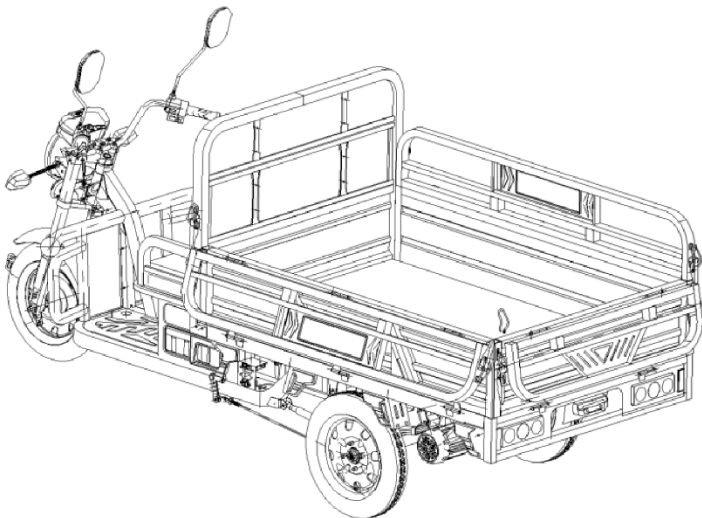
1. Hold the lower edge of the cargo bed frame firmly.
2. Carefully pull the cargo bed downward. When the cargo bed passes approximately halfway through its travel, support the bed with both hands and continue lowering it slowly until it reaches the horizontal position.
3. Rotate the latches on both sides of the cargo bed upward and ensure the hooks engage securely with the corresponding brackets on the cargo bed.
4. Press the latches down until they are fully secured.

Operation

Folding Down the Cargo Bed Panels

The cargo bed panels can be folded down to allow easier loading and unloading of materials.

1. Rotate the latches located on both sides of the rear cargo bed panel upward to release the hooks.
2. Hold the rear panel firmly and lower it downward.
3. Rotate the latches on both sides of the front upper panel to release the hooks.
4. Hold the upper panel and carefully lower it down.
5. Once the panels are lowered, cargo can be loaded or unloaded without obstruction.



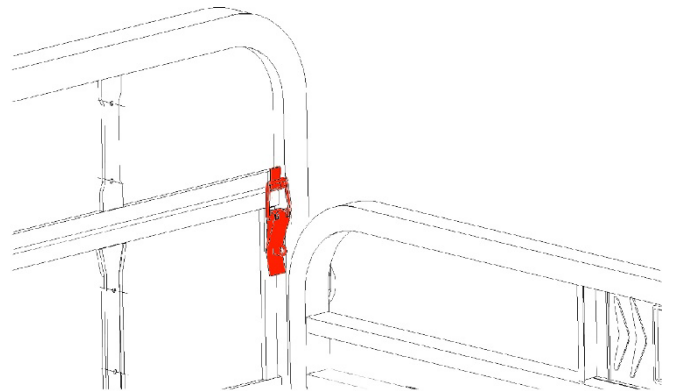
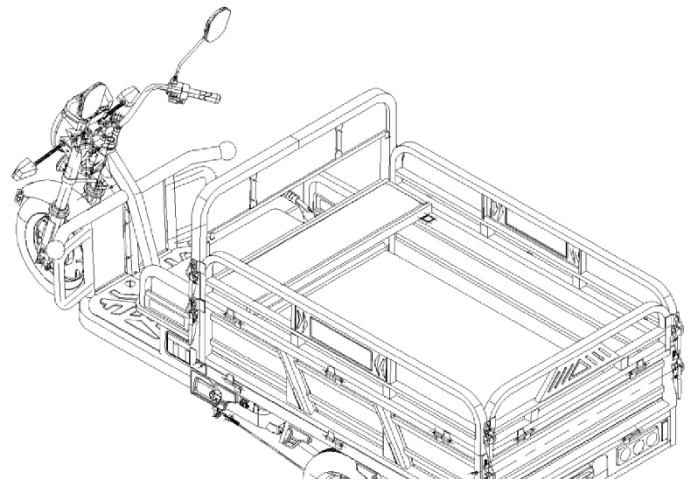
WARNING

Before operating the cargo bed panels, make sure the parking brake lever is fully engaged to prevent the vehicle from moving unexpectedly.

Folding the Front Seat Panel

The front seat backrest panel can be folded down to allow the transport of longer cargo that extends beyond the cargo bed.

1. Lift the latches located on both sides of the front seat backrest support frame.
2. Push the backrest panel backward and rotate it downward until it is fully flat.
3. Once the backrest panel is folded down, the vehicle can carry long cargo that extends beyond the cargo bed.



NOTICE

Always secure the cargo firmly using straps or ropes before operating the vehicle.

The vehicle is equipped with tie-down hooks located on both sides underneath the cargo bed, which can be used to secure cargo. Ensure the cargo does not obstruct the operator's view or interfere with vehicle controls. Never exceed the maximum rated load capacity specified in this manual.

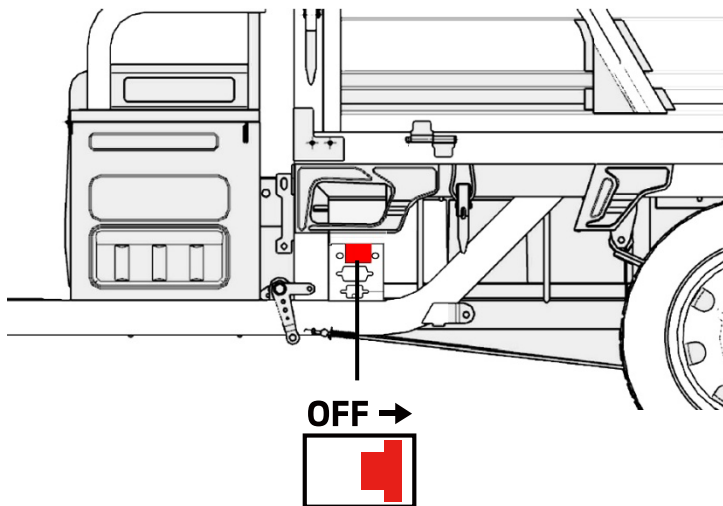
Battery Removal and Installation

⚠ WARNING

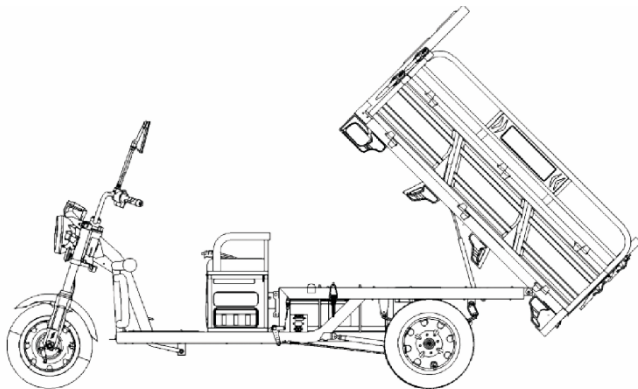
Battery removal and Installation must be performed by qualified personnel only. Improper handling of batteries may result in electrical shock, short circuit, fire, or explosion.

Installing the Battery

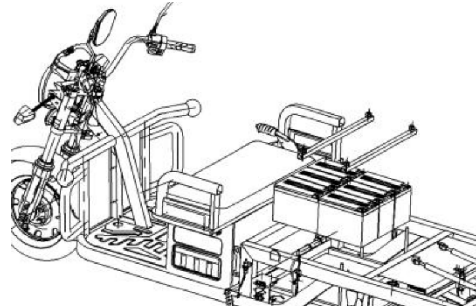
1. Turn OFF the main battery breaker of the vehicle.



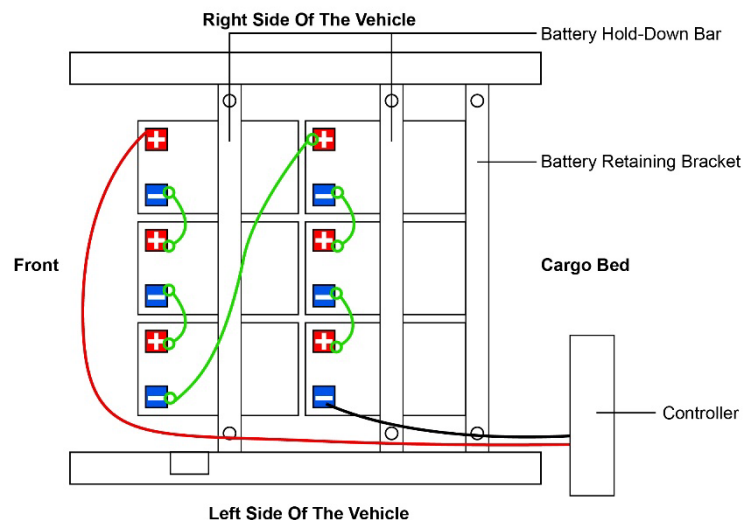
2. Raise the cargo bed to access the battery compartment.



3. Place the batteries into the battery compartment in the correct orientation as shown in the diagram.



4. Install the two battery hold-down bars and one battery retaining bracket, tighten the nuts securely.



5. Connect the battery interconnecting cables according to the Electrical Schematic diagram in this manual. Ensure all connections are secure before switching the main battery breaker back to the ON position.

⚠ WARNING

Always install the battery retaining brackets to secure the batteries firmly in place. These brackets are required to prevent battery movement during operation, which may cause damage to the electrical system or create a safety hazard.

Operation

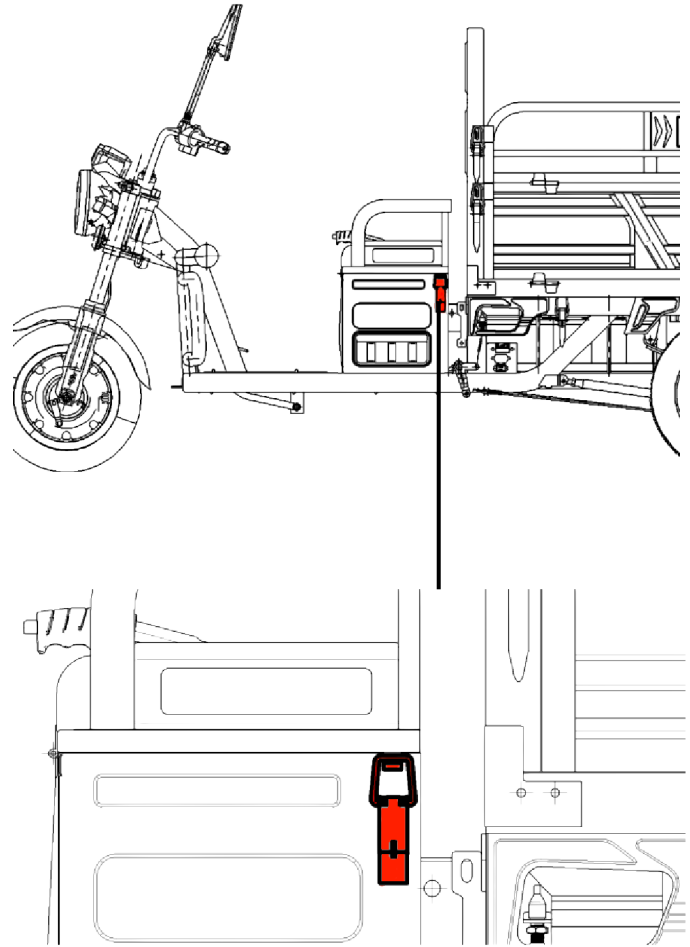
DANGER

When connecting the battery cables, ensure the positive (+) and negative (-) terminals do not come into contact. Incorrect connections may result in short circuits, electrical arcing, fire, explosion, or serious personal injury.

Batteries are heavy. Use proper lifting techniques when removing or installing batteries.

Removing the Battery

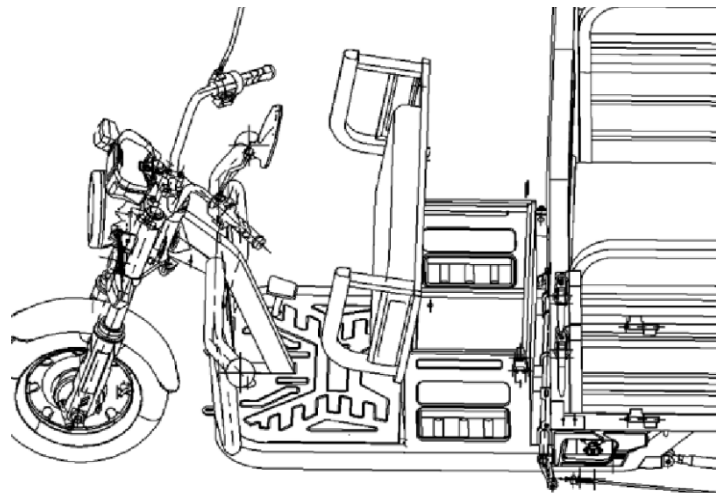
1. Turn OFF the main battery breaker of the vehicle.
2. Raise the cargo bed to access the battery compartment.
3. Using a wrench, loosen the nuts on the battery hold-down bars and remove the bracket.
4. Disconnect the battery interconnecting cables between the batteries.
5. **Important:** Avoid contact between the positive (+) and negative (-) terminals during removal to prevent short circuits.
6. Carefully remove the batteries one by one from the battery compartment for inspection, maintenance, or replacement.



Under-Seat Tool Box

The vehicle is equipped with a tool box located beneath the seat for storing small tools or personal items.

1. Engage the parking brake.
2. Lift the latch located on the left side of the seat base to release it.
3. Pull up the seat handle and rotate the seat forward to open the tool box.
4. Once opened, tools or other small items can be placed into or removed from the tool box.
5. After use, return the seat to its original position and make sure the latch is securely locked.



Operation

Emergency Procedures

WARNING

RUNAWAY VEHICLE

If the vehicle accelerates uncontrollably:

Immediately step firmly on the foot brake pedal.

Quickly turn the key switch to the OFF position with your right hand.

Remove the key and contact an authorized service center for repair immediately.

Maintenance

Periodic Maintenance Schedule

To keep your vehicle safe and reliable, follow this schedule based on the total distance shown on your data display.

A = Inspect, **C** = Adjust, **R** = Clean, **L** = Lubricate, **I** = Inspect, Clean, Adjust, Lubricate, or Replace

		600 mi	2,200 mi	3,700 mi	5,300 mi	6,200 mi
Transmission Lubrication	•	R	I	I	I	I
Gear Lever Cable	•	I	C	C	C	C
Braking System	•	C	I	I	I	I
Battery		A	I	I	I	I
Brake Shoe Wear		C	I	I	I	
Brake Light Switch	•	A	I	I	I	I
Headlight Alignment	•	A	I	I	I	I
Shock Absorbers	• •	A	I	I	I	I
Fasteners (Bolts/Nuts)	•	A	I	I	I	I
Tires (Front/Rear)		A	I	I	I	I
Steering Bearings	• •		I			I

Items marked with a single dot (•) should be serviced by an authorized dealer unless you have the proper tools and manual.

Items marked with double dots (••) **MUST** be serviced by an authorized dealer for your safety.

Maintenance

Transmission Oil

Check the oil level daily to ensure the gearbox is well-lubricated. Park the vehicle on a flat, level surface.

How to add: If low, unscrew the bolt on the rear axle and add gear oil until the level is between the upper and lower marks.

WARNING

Securely tighten the bolt after adding oil.

Gear Lever Cable

Check the gear lever daily for smooth shifting.

Adjustment: If shifting is rough, check the adjustment bolts on both the gear lever and the rear axle.

Tightening: Use an M17 wrench to tighten any loose bolts. Adjust the bolt positions until the gear lever functions correctly.

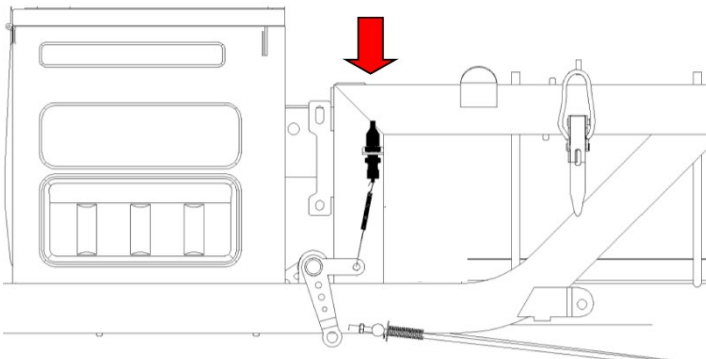
Brake Light Switch

This switch is a safety component that turns on the brake light and signals the controller to cut power to the motor.

Testing: With the brake released, the brake light should be OFF. When you press the foot brake, the light must turn ON.

Adjustment:

1. With the brake released, adjust the two nuts on the switch until the spring is in a naturally straight position (not stretched).
2. Tighten the nuts.
3. Verify that the motor cuts off and the light activates correctly when braking.



Headlight Alignment

If the headlight beam does not provide a clear view or is aimed incorrectly:

Loosen Bolts: Use a wrench to loosen the hex nuts on both sides of the headlight.

Adjust Angle: Tilt the headlight up or down until the beam provides the best visibility for the rider.

Lock Position: Turn on the light to verify the position, then firmly tighten the bolts on both sides.

Brake System

The vehicle is equipped with a mechanical braking system.

The front wheel is equipped with a cable-actuated brake. The rear wheels are equipped with a brake system operated by the brake pedal.

Apply the brakes smoothly and evenly to maintain control of the vehicle, especially when carrying a load or operating on uneven terrain.

Regular inspection and adjustment of the braking system are required to ensure proper performance.

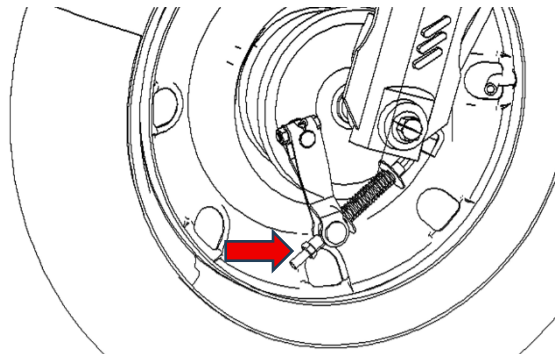
Front Brake Adjustment

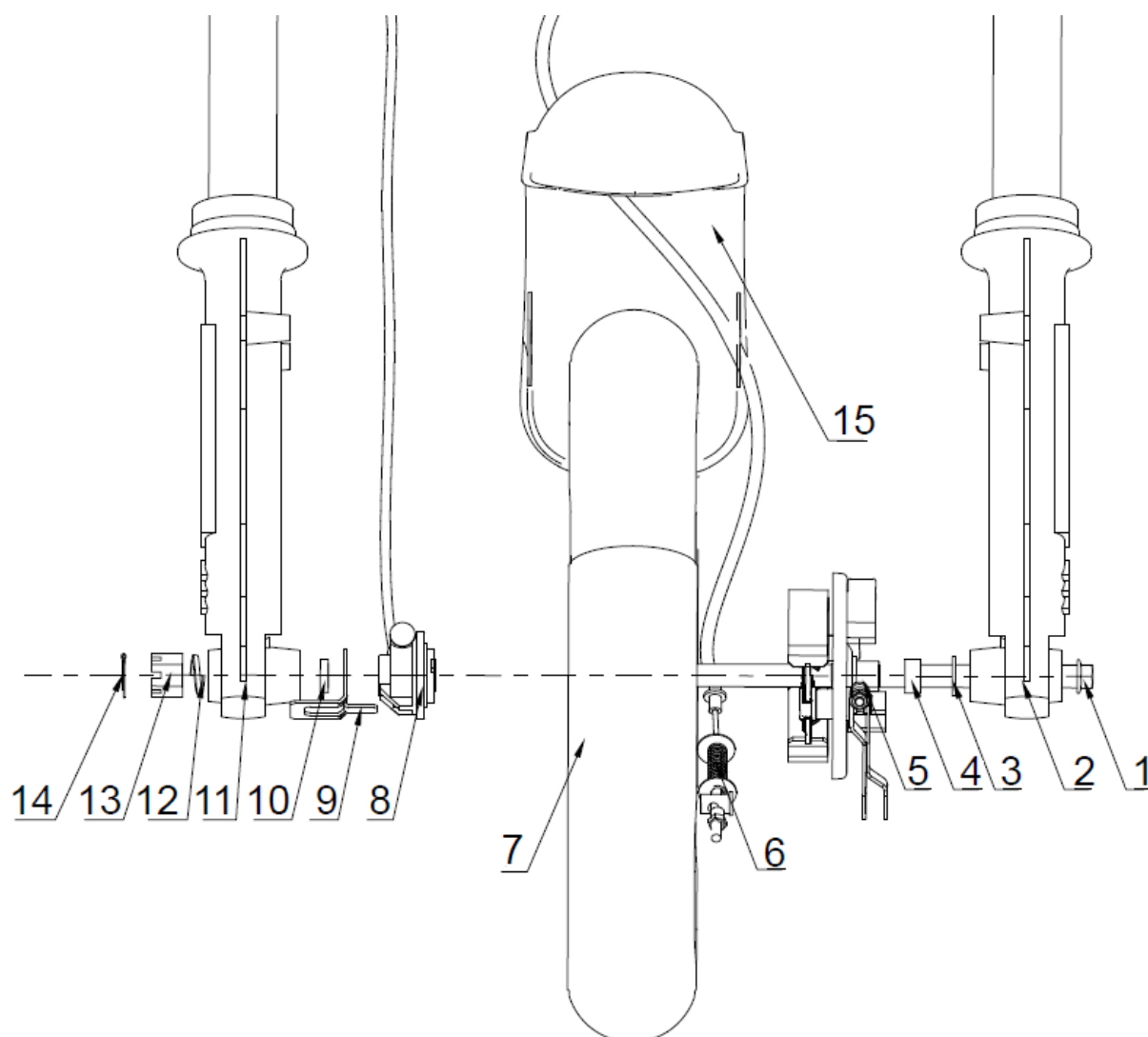
The arrow indicates the front brake actuating arm. The brake cable pulls this arm, causing it to rotate and activate the front brake.

To adjust the front brake:

- Turn the adjusting nut clockwise to tighten the brake, which reduces the brake clearance.
- Turn the adjusting nut counterclockwise to loosen the brake, which increases the brake clearance.

After adjustment, ensure the brake operates smoothly and does not drag during normal driving.





Front Wheel Assembly Reference

- | | |
|--------------------------------|--------------------------------|
| 1. Front Wheel Axle | 8. Speedometer Drive Unit |
| 2. Left Front Shock Absorber | 9. Speedometer Drive Stopper |
| 3. Washer | 10. Right Bushing |
| 4. Left Bushing | 11. Right Front Shock Absorber |
| 5. Front Brake Assembly | 12. Spring Washer |
| 6. Front Brake Cable | 13. Slotted Nut |
| 7. Front Wheel & Tire Assembly | 14. Cotter Pin |
| | 15. Front Fender |

Rear Brake Adjustment

The arrow indicates the rear brake linkage rod. This rod connects the brake pedal linkage to the rear brake actuating arms on the rear axle.

When the brake pedal is pressed, force is transmitted through the linkage system, causing the rear brake linkage rod to move forward. This motion activates the left and right rear brake actuating arms, applying braking force to both rear wheels simultaneously.

Adjustment:

Turn the adjusting nut clockwise to tighten the brake, reducing brake clearance.

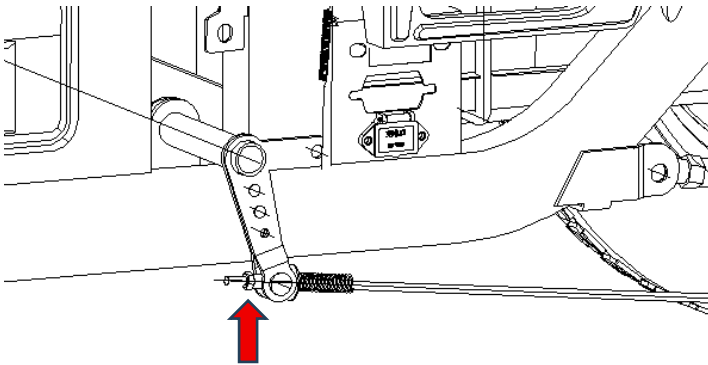
Turn the adjusting nut counterclockwise to loosen the brake, increasing brake clearance.

After adjustment, verify that:

Both rear brakes engage evenly.

The wheels rotate freely when the brake is released.

The brake does not drag during normal operation.



Cleaning the Vehicle

⚠ CAUTION

To maintain the exterior quality of the vehicle, it should be cleaned regularly. During cleaning, inspect the vehicle for any damage, wear, or fluid leaks.

Do not use high-pressure washers on the following components:

- Key Switch
- Electrical switches
- Data Display
- Wheel Hubs
- Battery and Controller
- Main Wiring Harness

NOTICE

Braking performance may be temporarily reduced immediately after washing. Always test the brakes in a safe area to ensure they have returned to normal operating condition before driving.

Storage of the Vehicle

For long-term storage, such as during winter (over one month), specific measures must be taken to prevent deterioration. Necessary maintenance or repairs should be completed before storage to ensure the vehicle is ready for use when taken out.

Please follow these guidelines:

Preparation: Clean and dry the vehicle thoroughly. Apply a coat of wax to all painted surfaces.

Battery Care: Turn off the main power switch, remove the battery, and store it in a cool, dry, ventilated area away from sunlight.

Battery Removal Order: ALWAYS turn off the power switch first. Disconnect the Negative (-) terminal first, then the Positive (+). When reinstalling, connect the Positive first.

Tires: Inflate tires to the correct pressure and place the vehicle on blocks so the wheels are off the ground.

Protection: Cover the vehicle with a breathable material and store it in a dry, ventilated area away from rain and direct sun.

Specifications

Product Description	Electric Off-Road Utility Tricycle
Power Type	Battery-Powered
Battery Type & Capacity	Lead-Acid 45Ah
Rated Voltage	72V
Maximum Range (unloaded)	43 mi
Maximum Speed	25 mph
Max Load Capacity	1100 lb.
Curb Weight	485 lb.
Max. Climbing Angle	≤ 14° (Relative to sea level)
Brake System	Front Drum Brake / Rear Drum Brake
Transmission Type	Fork-Shift 2-Speed Gearbox
Gear Ratios (High/Low)	1:10 / 1:30
Front/Rear Overhang	Hydraulic Damping Composite / Leaf Spring Suspension
Main Beam Section	40×60×1.75 mm
Motor Type	Permanent Magnet Synchronous IP 67
Motor Peak/Rated Power	3600W / 1300W
Tire	20-inch Heavy Duty Off-Road
Front Tire Pressure	36-38 PSI
Rear Tire Pressure	36-38 PSI
Ground Clearance	9"
Wheelbase	81"
Product Dimensions	123.2" L x 46.5" W x 55.1" H
Warranty	<p>3-Year Limited</p> <p>*1 year for the vehicle, 2 years for the motor, 12 months for the lead-acid battery, 3 years for the frame structure</p>

Troubleshooting Guide

Problem	What to Do
The vehicle will not start or move.	Locate the Battery Breaker (Air Switch) on the left side of the vehicle and ensure it is switched to the ON position. Confirm the ignition key is fully inserted and turned to the ON position. To begin driving, you must press the brake pedal and then press the P button on the handlebar until the READY light appears on the data display. Ensure all brake levers and the foot brake have fully returned to their original positions. Check the battery indicator on the data display to confirm the vehicle has enough power.
Low power or slow speed.	Use the 3-Speed Mode Switch on the handlebar to ensure you have selected Level 3 for maximum speed. Check the gear lever on the right side and ensure it is in H (High) for normal driving; use L (Low) only for heavy loads or steep slopes. Ensure the tires are inflated to the recommended pressure of 36 to 38 psi. Verify that the cargo weight does not exceed the maximum load capacity of approximately 1100 lbs.
Battery will not charge.	Confirm that the charger is firmly connected to both the vehicle charging port and the power outlet. Monitor the charger lights: red indicates charging and green indicates the process is complete. If the charger light remains red for more than 8 hours without turning green, stop charging and seek assistance. For best efficiency, charge the battery in a well-ventilated area between 50 and 86 degrees Fahrenheit.
Brakes are less effective or noisy.	If the brakes are slipping or squeaking, clean the brake discs with clear water or alcohol to remove dirt or oil. Visually inspect the brake lines and components for any signs of oily residue or fluid leaks. Note that if the brake handle feels soft or bouncy (spongy), there may be air in the system, which requires professional maintenance.
Lights or horn are not working.	Check the main air switch to ensure it has not tripped to the OFF position. Perform a visual inspection for any loose or disconnected wires visible around the handlebars or battery area.
Abnormal noises during driving.	Inspect the wheels and motor area for any debris or foreign objects caught in the rotating parts. Use a basic wrench to tighten any loose nuts or bolts on the cargo box or frame. Ensure there is sufficient gear oil in the gearbox, as low levels can cause grinding noises.

WARNING

If these basic checks do not resolve the issue, or if you detect smoke, a burning smell, or damaged high-voltage cables, stop using the vehicle immediately. Never attempt to dismantle the motor, controller, or battery yourself, as they contain dangerous high-voltage components. Always contact customer service for internal electrical or mechanical repairs.

Electrical Schematic

