This manual should be regarded as a permanent component of the electric dirt bike and must be transferred to the next owner upon resale.
This publication contains the most up-to-date production information available prior to printing.
Rawrr reserves the right to make changes at any time without prior notice and without incurring any obligation.
Rawrr retains the ultimate right of interpretation of this manual.
No part of this publication may be reproduced, translated, sold, or transferred without the prior written consent of Rawrr.
The electric dirt bike depicted in this manual may differ from the actual bike you own.

Please ensure your safety and enjoyment of the ride.

- Carefully read this manual.
- Please follow all the advice and procedures contained in the manual.
- Pay close attention to the safety information and tips included in this manual.

To protect your property, we strongly recommend maintaining your bike in good condition. Additionally, please adhere to the operating instructions and always perform the pre-ride checks and other routine inspections outlined in this manual.

Your Rawrr dealer is the most knowledgeable about your all-terrain electric motorcycle. If you have any questions or concerns about the bike, manuals, and related policies, we recommend contacting Rawrr or an authorized dealer. We are not responsible for any unofficial statements or opinions regarding off-road bikes, manuals, and related policies.

You can also visit our website www.riderawrr.com for more information. Enjoy your off-road electric journey!

Your safety, as well as the safety of others, is paramount. Safe operation of this all-terrain electric motorcycle is an important responsibility.

To ensure your and others safety, we have provided operational procedures and other safety label information in this manual that may cause harm to you or others.
Please understand that it is not practical or feasible to inform or warn you of dangers when operating or maintaining the all-terrain electric motorcycle. You must exercise your own good judgment.
You will find important safety information in various forms, including:

- Safety warning labels affixed to the electric dirt bike.
- Fault code information displayed on the bike's instrument panel.
- Trouble tickets generated through the electric dirt bike's mobile app.
- A safety alert will always precede safety messages.

The electric dirt bike is strictly prohibited from being driven in unauthorized areas.

California Proposition 65 Warning

WARNING: Operating, servicing, and maintaining a passenger dirt bike (All-Terrain Bike) or off-highway motor dirt bike (All-Terrain Bike) can expose you to chemicals, including engine exhaust, carbon monoxide, phosphates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust gases, do not idle the engine except as necessary, service your dirt bike (All-Terrain Bike) in a well-ventilated area and wear gloves or wash your hands frequently when servicing your dirt bike (All-Terrain Bike). For more information, go to www.P65Warnings.ca.gov/passenger-dirtbike

Table of Contents

1. Safety Precautions

For your safety and the safety of others, please read this chapter carefully!

Before Riding:

- Do not attempt to assemble, disassemble, or package the electric dirt bike alone—these tasks must be carried out with the assistance of a team.
- Always operate the electric dirt bike in compliance with local regulations.
- You must understand and strictly follow all applicable laws and regulations when using the electric dirt bike.
- When recommending or using the bike, always carry this manual along with other proof of purchase documents.
- Overloading is strictly prohibited: Operating beyond the designed load capacity can lead to frame deformation or fracture, rapid battery drain, motor overload and damage, and reduced braking effectiveness. This greatly increases the risk of rollover, loss of control, and other severe accidents.
- Passenger restrictions: This bike is intended only for the owner or riders who have received professional riding training. Untrained individuals lack the necessary handling skills for complex terrain, balance, and emergency braking, and improper operation may result in accidents. In addition, improper weight distribution from unqualified riders can compromise bike stability.
- Ensure you have received training specific to this electric dirt bike and that you are familiar with all of its functions.
- You must fully understand both the capabilities and limitations of the bike. Familiarize yourself with its braking and motor systems to ensure effective control. Practice braking in a safe, open area until you can operate the bike smoothly. The Race Mode of this bike delivers very high power; without the proper knowledge and training, riders risk serious injury.
- Avoid riding in a sliding or drifting manner, as this can cause loss of control or tire damage.
- Any form of modification is strongly discouraged. Unauthorized modifications may result in property damage and even personal injury.
- This electric dirt bike is not a toy for children.
- Always use the dedicated Rawrr lithium battery charger, with an AC input voltage of 100–240V and a frequency range of 50–60 Hz. Before charging, inspect both the charger and charging port for moisture. Do not charge in the presence of flammable or explosive substances, high temperatures, or excessive dust. Disconnect the charger promptly once charging is complete.
- Charging is prohibited at temperatures below 0°C (32°F), as doing so may damage the battery pack. Wait until the battery temperature rises before charging.
- If the battery core temperature reaches 45°C (113°F) or above, charging will be disabled. Wait until the battery temperature returns to the normal range before proceeding with charging.

A safety check must be performed every time before riding.

Checking List Before Riding:

Loose Parts

There should be no rattling, clanking, or abnormal noises caused by loose or damaged components. If you encounter such issues and require assistance, please contact an authorized dealer for inspection or call customer service.

Brakes
Check the braking system to ensure proper function: when the brake lever is squeezed, the brakes must deliver effective stopping power. At speed, squeezing the brake lever will also activate the power cut-off switch, immediately shutting down the motor.

Tire Inflation
Regularly inspect tire pressure and tread wear, inflating or replacing tires as needed. Recommended pressures: **Front tire — 32 psi (225 kPa); Rear tire — 40 psi (280 kPa)**. Tires should maintain proper tread patterns, free from nails, stones, glass, or any embedded foreign objects.

Frame, Swingarm, and Handlebars
Inspect for cracks or broken connections. While frame breakage is uncommon, aggressive riding or collisions with curbs and walls may result in bending, cracking, or severe frame damage. It is essential to develop the habit of regular inspections.

Other Components

Check lights and reflectors for damage or contamination.

Inspect the power circuits, lighting, and wiring harnesses for normal function; replace damaged wires immediately.

Check spoke nipple tightness (generally **3–5 N·m**). If loose, tighten at once.

Ensure the throttle operates smoothly, without sticking, and returns quickly to its neutral position.

Chain: If chain jamming or derailment occurs, troubleshoot immediately. Regularly clean away dirt and sand, and apply chain lubricant to the surface. Under normal conditions, chain slack (lowest to highest displacement) should be **15–20 mm**.

Keep the moving parts of the front and rear suspension clean and free from dirt.

Safety Devices

Ensure Proper Personal Protective Equipment (PPE) and Clothing

#Approved Helmet

Wear a certified helmet that meets safety standards, with integrated eye protection and high visibility.
Warning: Failure to properly wear an approved helmet significantly increases the risk of severe injury or death in an accident.

#Gloves

Use off-road riding gloves that provide protection, flexibility, grip, and durability.

#Elbow and Knee Guards

Protective gear that offers impact absorption, freedom of movement, secure fit, and long-lasting durability.

#Boots or Riding Shoes

Durable boots that combine protection, support, traction, and endurance, ensuring safety for your feet, ankles, and lower legs.

#Jacket and Pants

Tear-resistant, impact-protective riding pants (or a protective suit) that balance breathability and mobility.

#Additional Off-Road Gear

Casual outdoor wear may suffice for light off-road riding. However, for more demanding off-road activities, specialized gear is strongly recommended:

Basic Protection: Helmet and goggles (mandatory)

Enhanced Protection: Off-road motorcycle boots, anti-slip gloves, riding pants with knee and hip pads, jerseys with elbow pads, chest and shoulder protectors

Clothing to Avoid: Loose or baggy garments that could get caught on the bike's moving parts

Unauthorized individuals must never operate your electric dirt bike. If others are allowed to ride, ensure they have thoroughly read this manual and fully understand the bike's characteristics, functions, limits, performance, and potential risks. The safety of new riders is your responsibility—you must provide supervision and guidance until they can operate independently. All riders must wear approved protective gear.

Transport and Handling Precautions

This electric dirt bike is heavy. Never attempt to lift it alone during handling or transport to avoid injury or damage.
Always take protective measures for both the bike and the personnel when moving or lifting it. Keep clear of sharp and moving parts such as wheels, handlebars, gears, chains, and foot pegs to prevent injuries.

During transport, secure the bike firmly to minimize the risk of shifting, which could lead to injury or damage.

Riding Guidelines

- Riding this electric dirt bike on public streets, highways, or pedestrian pathways is not recommended. Due to its weight, anticipate road conditions early to avoid injury or property damage.
- Riding at full speed in any setting carries a high risk of accidents. Always control your speed within safe limits, accounting for terrain and weather.
- Exercise caution and maintain low speeds in poor weather or road conditions.
- Riding in extreme weather (snow, storms, high winds) or on muddy, icy, or slippery surfaces is not advisable.
- On wet or snowy roads, braking distance increases significantly. If water depth exceeds 9 inches (23 cm), brake performance may fail, creating a severe hazard.
- Keep both hands on the handlebars and both feet on the footpegs at all times. Stay alert to road and environmental conditions.
- The use of mobile phones, cameras, headphones, or any electronic devices while riding is strictly prohibited.
- Always consider the safety of passengers and others around you.
- Slow down when approaching intersections, highways, turns, and driveways, and give priority to pedestrians and bikes.
- For long-distance riding, it is recommended to use ECO mode with suitable gear for energy efficiency and extended range. Prolonged use of Sport Mode will reduce range and shorten battery life.
- If any abnormal behavior occurs while riding, stop immediately. Investigate the alarm or fault, and do not resume riding until the issue has been resolved. Contact after-sales service for professional assistance if needed.

Warning: Driving under the influence of alcohol is illegal. Operating a bike while impaired by alcohol or drugs severely diminishes your ability to judge road conditions and react to environmental changes. Riding under the influence is strictly prohibited.

Riding the electric dirt bike is strictly prohibited under any of the following conditions:

- Individuals under the influence of alcohol or drugs.
- Individuals with medical conditions that make vigorous physical activity unsafe.
- Riders exceeding the specified weight limit (see specifications). The recommended maximum load is 100 kg (220 lbs).
- Individuals unable to balance a bicycle, motorcycle, or similar bike.
- Pregnant individuals.
- Riders legally restricted from operating a motorcycle.
- Individuals unable to perform strenuous physical activity due to illness.
- Minors without the supervision of an authorized adult.

If you are unfortunately involved in a collision, personal safety must always come first.

Take time to assess the extent of injuries to yourself and others involved. If necessary, call for emergency assistance immediately. In addition, if other individuals or electric dirt bikes are involved, you must strictly comply with applicable laws and regulations when handling the situation.

Lithium Battery

If you detect an unusual odor coming from the lithium battery, immediately park the bike in a safe, open area, switch off the power, and move away from the bike. Notify your dealer at once and arrange for professional inspection of the bike.

Racing

Regardless of a rider's skill or experience, competitive racing always carries inherent risks. Safety must remain the top priority at all times.

Parking

When parking, place the electric dirt bike on a solid, level, and secure surface to ensure riders can mount and dismount quickly and safely.

Parking Procedure:

1. Bring the bike to a complete stop, switch off the "READY" mode, and turn off the ignition.
2. Lower the side stand.
3. Gently lean the bike to the left until the frame is securely supported on the ground.
4. Turn the handlebars fully in the same direction as the bike's lean.
5. Lock the steering and remove the key.

- When parking on uneven or soft ground, always choose a flat, solid surface to secure the bike and prevent slipping or tipping.
- Ensure that flammable materials are kept away from high-temperature components such as the battery, motor, and brakes.
- Do not touch the motor, battery, controller, or other components that may become hot during riding.
- Always confirm that the throttle is in the closed position and remove the key to reduce the risk of theft or accidental start-up. We also recommend using additional anti-theft devices for enhanced security.

- This electric dirt bike is an electric bike that incorporates many electrical components. Avoid immersing the bike or its parts in water, and prevent prolonged exposure of components to rain or moisture.

When Not Riding:

- After short trips, always switch off the power and ignition.
- Keep your dirt bike in a safe condition at all times.
- Maintain the battery at a proper charge level to ensure safe riding conditions.
- Perform a thorough inspection before each ride to prevent malfunctions while riding off-road or away from camp.
- When not in use for extended periods, switch off the power completely to avoid safety hazards or property damage.
- Keep unsupervised minors away from the bike to reduce potential risks.
- When charging after storage, keep cables away from water, open flames, and heat sources to reduce fire hazards. Extreme heat or cold can damage the bike or battery and may cause accidents during riding.
- Do not immerse the battery in water. Water can seep inside under pressure, causing internal components to corrode. If the battery is submerged, do not recharge it, as this could lead to overheating, fire, or explosion.
- Battery Temperature: Store lithium batteries between 0°C and 40°C (32°F–104°F). Do not store or operate the battery outside this safe range.
- Battery Maintenance: From the date of receiving the bike, if it will not be ridden, charge the battery to about 50%.
- Battery Protection: If the State of Charge (SOC) ≤ 1%, the battery will enter deep sleep after 24 hours. To reactivate, connect the charger for charging, or press and hold the indicator panel button for 3 seconds.
- Cleaning: Always remove the battery before washing the bike. Use only low-pressure water. High-pressure washing is strictly prohibited. Direct spraying onto electrical parts may cause water intrusion, resulting in short circuits, leakage, or damage that affects safe operation.
- Children must not operate or play with any components, parts, or tools of this dirt bike. Cleaning and maintenance should be performed only by authorized personnel. Children and unauthorized adults must not participate, to prevent accidents or equipment damage.

Attachments and Modifications

We do not recommend any personal or unauthorized modifications, including adding non-Rawrr or unapproved accessories. Such changes may compromise the bike's design balance, significantly increase risks, and endanger rider safety.

Before using attachments, carefully check that they do not:

- Reduce ground clearance or cornering clearance
- Restrict suspension travel, steering range, or control operations
- Obstruct lights or mirrors

Pay special attention to handlebar and front fork attachments: poor weight distribution here can cause serious instability. If installed, they must be lightweight and kept to a minimum.
Heavy accessories negatively impact weight distribution and can severely affect the bike's stability.
Certain attachments may alter the rider's posture, restricting movement and reducing control ability, which can result in collisions, serious injury, or even death.
Unauthorized modifications may also void the warranty and render the bike illegal for operation.
Always ensure that any modifications or added accessories meet safety standards and comply with local laws and regulations to avoid safety risks, warranty loss, or legal liabilities.

Carrying cargo or attachments that may impair the bike's performance is strictly prohibited—for example, towing a trailer or adding a sidecar. Likewise, modifying the bike to accommodate additional passengers is not allowed.
Please note that this electric dirt bike is not designed for ride-sharing, cargo transport, or delivery purposes. Such use will seriously compromise bike safety and handling, creating significant hazards.
When riding in rainy conditions, tire traction on the road surface is greatly reduced. This not only diminishes braking performance but also worsens visibility, dramatically increasing the risk of accidents.

Special Warning

If the bike is damaged by external force and begins to emit smoke or catch fire, extinguish the flames immediately using a dry chemical fire extinguisher or sand.
(Note: Lithium-ion batteries contain multiple chemical substances. In the event of leakage, combustion, or thermal runaway due to aging or external damage, they may pose serious hazards to human health and the surrounding environment. It is strongly recommended to contact the fire department for assistance. Do not attempt to handle damaged batteries on your own. Batteries within 36 months of purchase and use must be disposed of by a qualified professional company in accordance with safety regulations.)

Important: The manufacturer assumes no responsibility for any damage caused by the following:

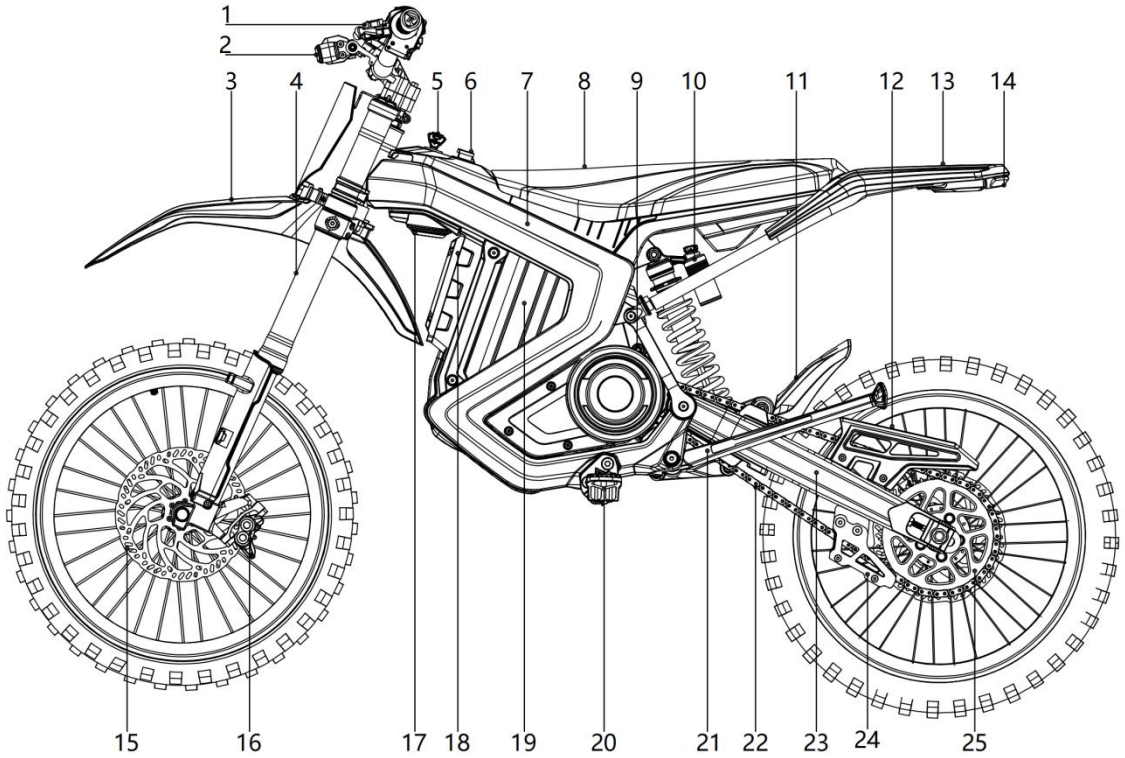
- Failure to follow the instructions in this manual for use or maintenance.
- Unauthorized modifications to the bike.
- Damage caused by force majeure events.

Warning – Fire Hazard – No User-Serviceable Parts

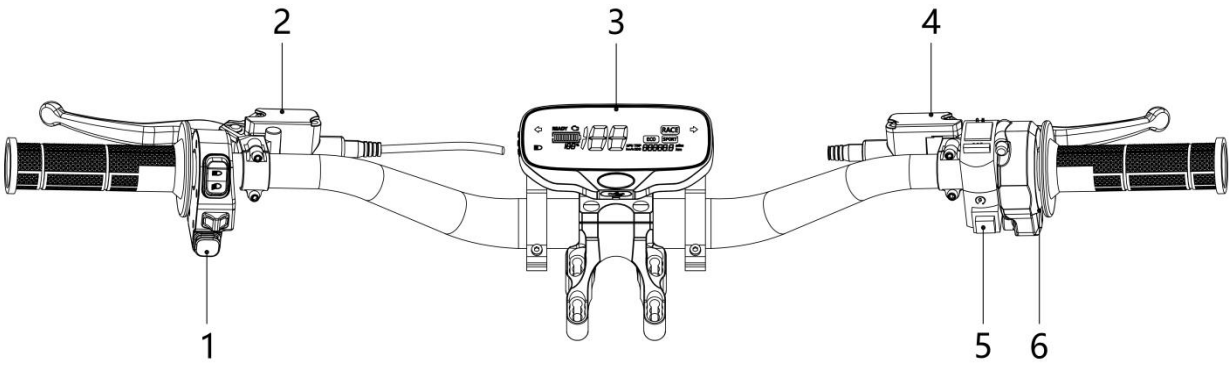
The exterior housing materials are highly susceptible to aging, cracking, or damage when exposed for prolonged periods to UV rays, rain, or other environmental factors.

To prevent such issues, always store the bike indoors when not in use. This will effectively protect the exterior components and extend their service life.

2. Functional Diagram

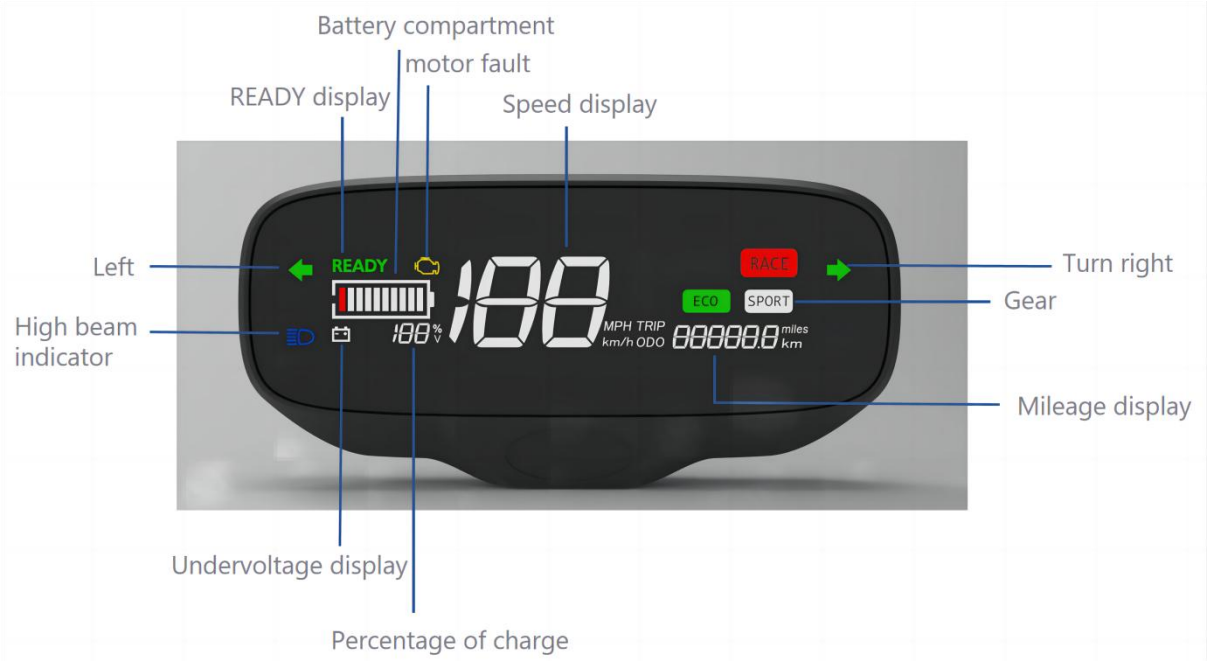


1-Dash	2-Headlight	3-Front Fender	4-Front Shock	5-Key	6-Charging Portal
7-Frame	8-Seat	9-Motor	10-Rear Shock	11-Rear Mud Guard	12-Chain Cover
13-Rear Fender	14-Taillight	15-Rotor	16-Front Caliper	17-Horn	18-Controller
19-Battery	20-Peg	21-Kickstand	22-Chain	23-Rear Fork	24-Chain Guide
25-Rear Sprocket					



1-Left Switch Assembly 2-Left Brake Lever (Rear) 3-Dash 4-Right Brake Lever (Front)
5-Right Switch Assembly 6-Throttle

Left Switches				
	Left Switches Assembly	Beam Switch	Turn Signal Switches	Horn Switches
Right Switches				
	Right Switches Assembly	READY Switch	ECO, Sport, Race Switch	Throttle



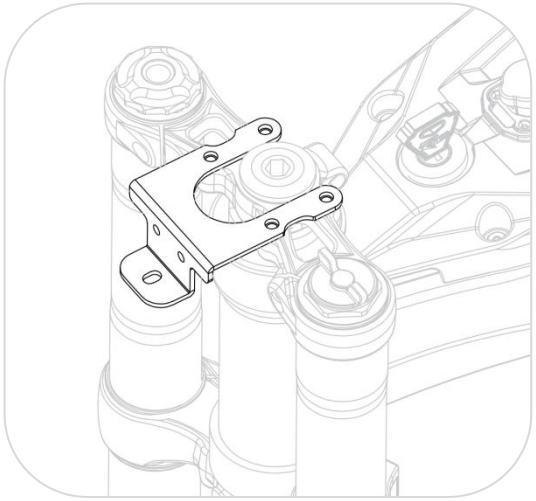
No	Function	Symbol	Note
1	Speed		Current speed display while riding
2	ODO	ODO	Total mileage ODO display, switchable to metric miles
3	Single trip mileage	TRIP	Each time you turn on the power, the individual mileage is recalculated
4	Gear display	RACE ECO SPORT	ECO/SPORT/RACE displayed according to actual conditions
5	Operating status	READY	Operating indicator, speed off, no speed on
6	Low voltage indicator		Flashing when battery is low
7	High beam display		High beam indicator on indicator light
8	Turn signal display		Left and right turn signal indicators
9	Motor failure		Fault display
10	Battery percentage	% V	0% to 100% - Displays the current battery charge level
13	Error code Display		Displays fault codes (for code details, refer to the controller specifications)

Recommended Torque for Installing Critical Components		
No	Installation Position	Recommended Torque
1	Front Axle Fastening	28-30N.m
2	Function Switch Fastening	4-5N.m
3	Rear Chainring Fastening	18-20N.m
4	Front Disc Brake Rotor Fastening	10-12N.m
5	Rear Disc Brake Rotor Fastening	12-15N.m
6	Front and Rear Caliper Fastening	12-15N.m
7	Chain Guide Fastening	12-20N.m
8	Chain Slider Fastening	3-4N.m
9	Pedal Bracket Fastening	28-32N.m
10	Motor Mounting	25-30N.m
11	Rear Fork Fastening	18-22N.m
12	Rear Shock Absorber Fastening	32-36N.m
13	Rear Tail Frame Fastening	18-22N.m
14	Rear Wheel Axle Fastening	60-70N.m
15	Handlebar Fastening	7-9N.m
16	Steering Column Adjustment Nut	3-5N.m
17	Steering Column Locking Bolt	30-35N.m

3. Quick Installation Guide

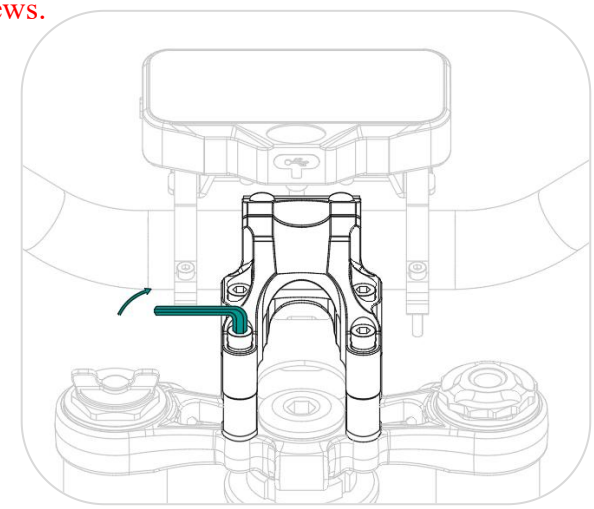
Install Handlebar

1. Place the license plate holder on the upper mounting plate, aligning it with the four 4-hole positions.



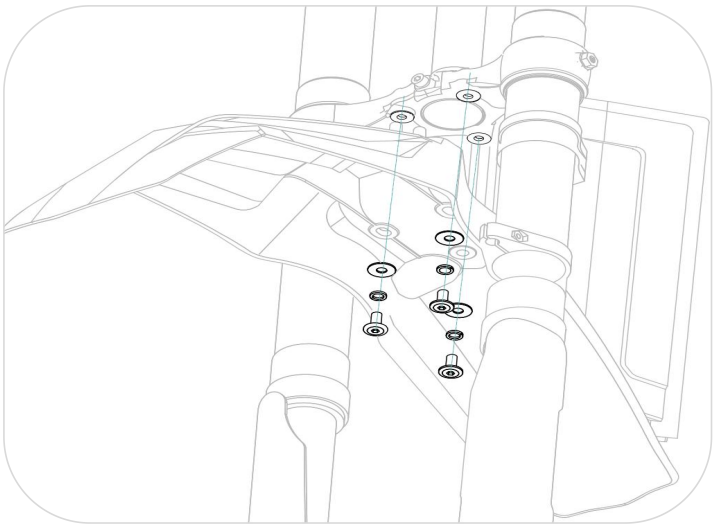
2. Place the riser blocks and handlebars onto the license plate bracket, align the holes, and tighten the four screws using a #5 hex wrench.

Note: Spring washers must be added to all four screws.



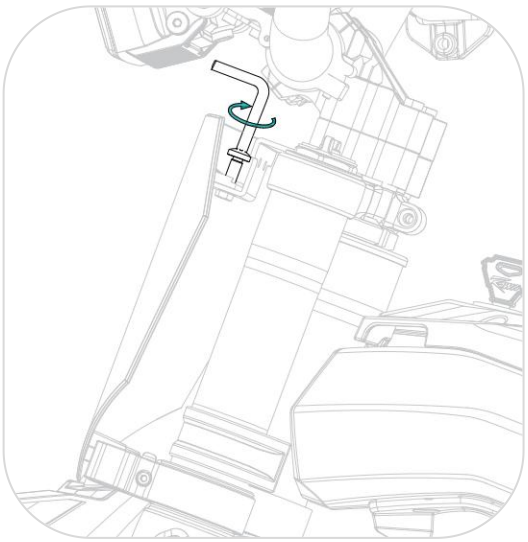
Installing the Front Fender

1. Using a #5 hex wrench, secure the front fender to the lower mounting plate with three bolts, including flat washers and spring washers.



Installing the License Plate

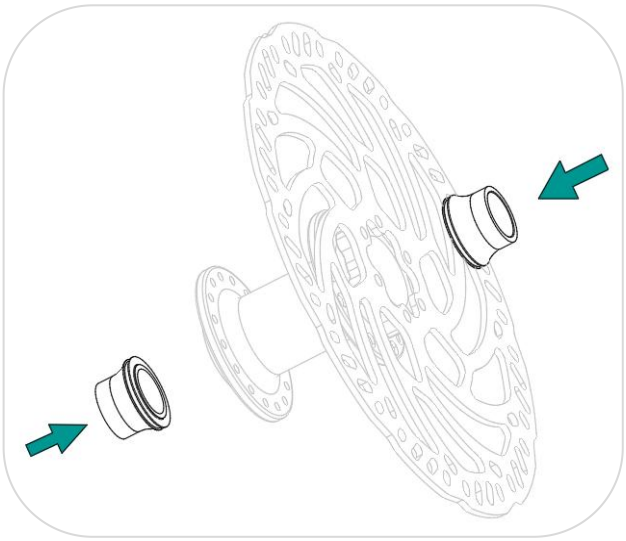
1. Using a T30 hex socket wrench, secure the license plate to the mounting bracket with a countersunk flat-head bolt/M6*20.



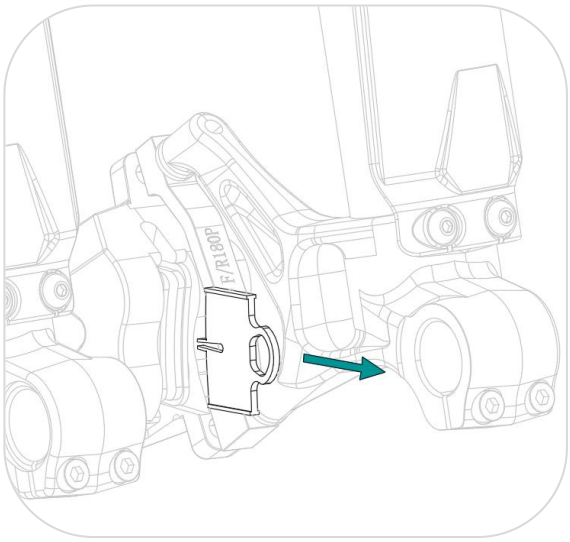
Installing the Front Wheel

1. Install front axle bushings on both sides.

Note: Do not crush the seals.

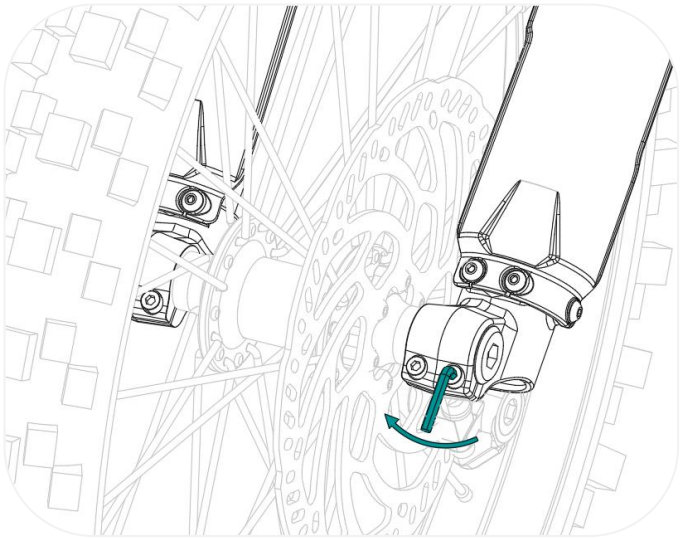


2. Remove brake caliper pads.



3. Align the front wheel with the fork mounting position and the brake disc with the caliper. Secure the front axle using an 8mm hex wrench.

4. Tighten the four bolts securing the front wheel axle holes.



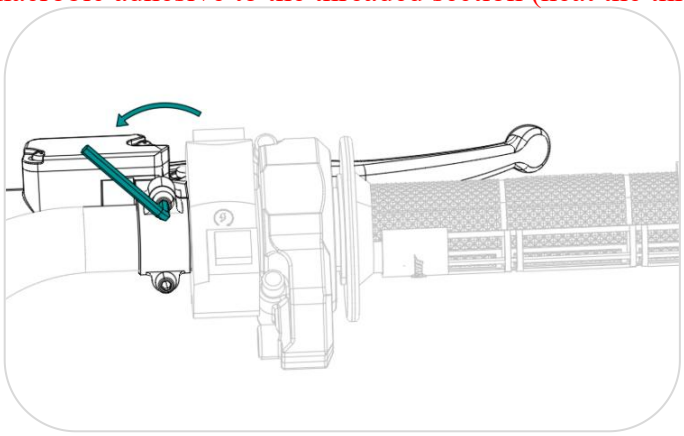
Note:

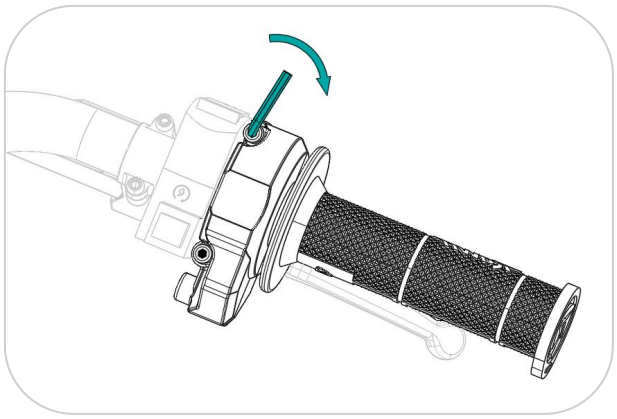
1. After removing the caliper clamping block, do not squeeze the right brake lever. Squeezing the right brake lever will cause the brake pads to clamp, making it difficult to insert the brake disc.

2. When installing the front wheel, pay attention to the position of the brake disc and caliper. After installation, ensure the front wheel rotates smoothly without unusual noises.
3. When installing the brake disc, apply anaerobic adhesive to the threaded section (heat the threaded section during removal).

Adjusting the Throttle and Lever

1. As shown in the illustration, adjust the front brake lever to a comfortable angle of 10°–15° downward relative to the horizontal, based on your grip width. Secure the brake lever using a #4 Allen wrench.



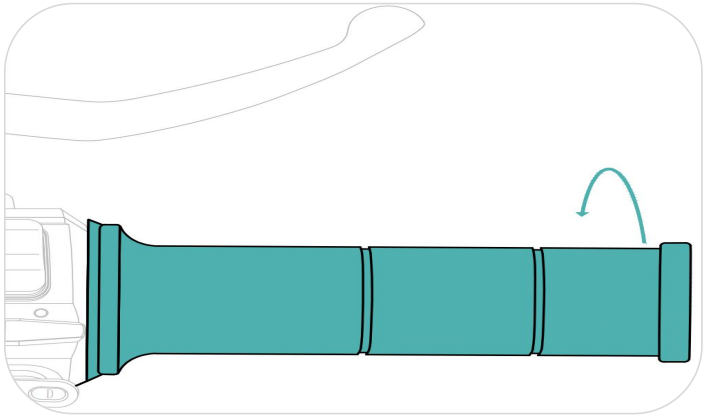


2. As shown in the figure, adjust the twist grip to a comfortable angle within ±5° of horizontal, suited to your grip width. Secure it using a #4 hex wrench.

3. First turn the handle inward all the way, then release it to allow it to return to its natural position.

Note: Power must be turned off before adjusting the twist grip.

Ensure the twist grip rotates inward smoothly for acceleration and returns freely. If any sticking occurs, inspect the twist grip and adjust it according to the twist grip adjustment procedure.



4. The adjustment procedure for the left brake lever (rear brake) and the left combination switch is identical to the steps described above.

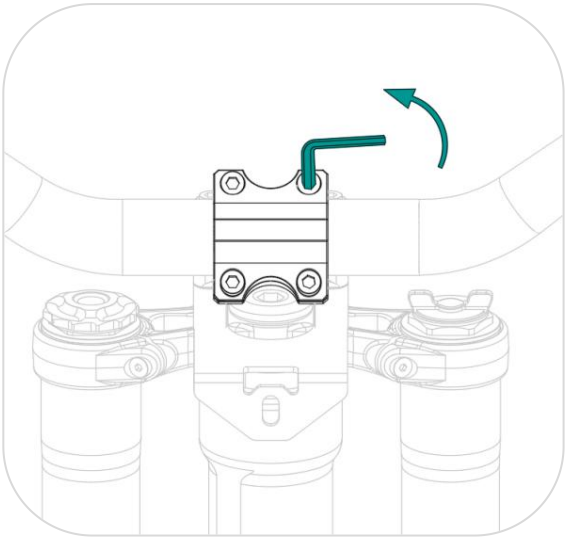
Adjusting the Handlebar

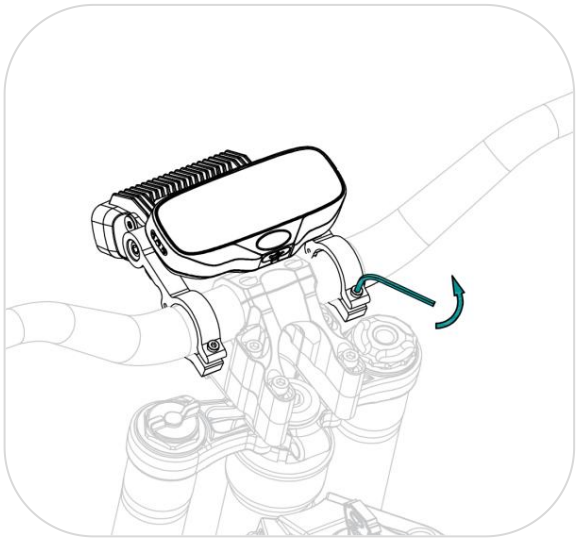
1. Use a #5 hex wrench to loosen the four screws and adjust the handle angle. After adjustment, tighten the bolts.

Note: Do not lose the bolt retaining washers.

Adjusting the Dash

1. Use a #3 hex wrench to loosen the two screws, then rotate the gauge to the desired angle. After adjustment, tighten the locking bolts.

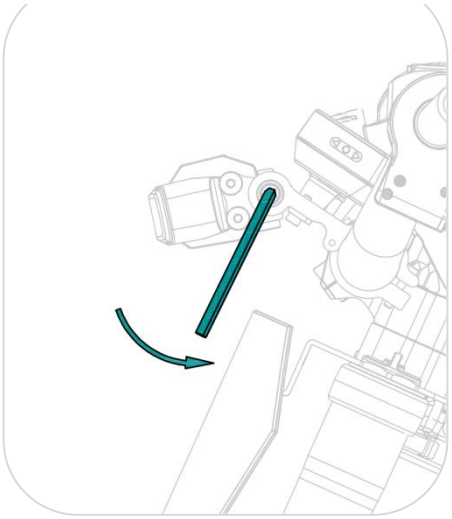


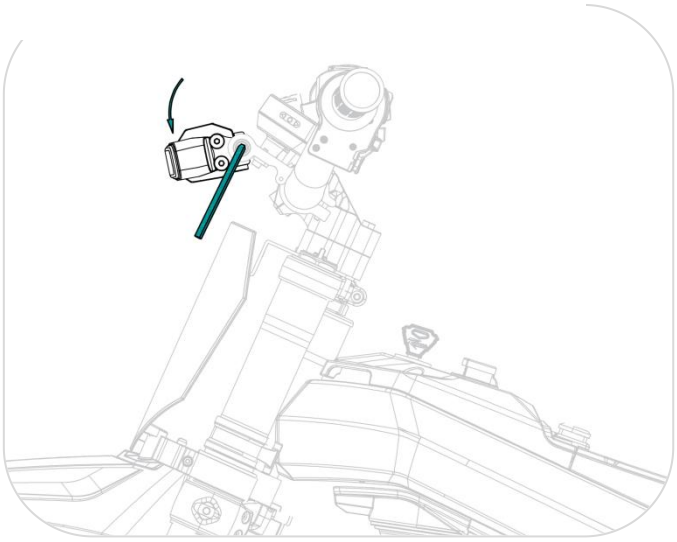


Adjusting the Headlight

1. Use a T30 hex socket wrench to loosen the two mounting bolts, then adjust the headlight angle. After adjustment, tighten the bolts securely.

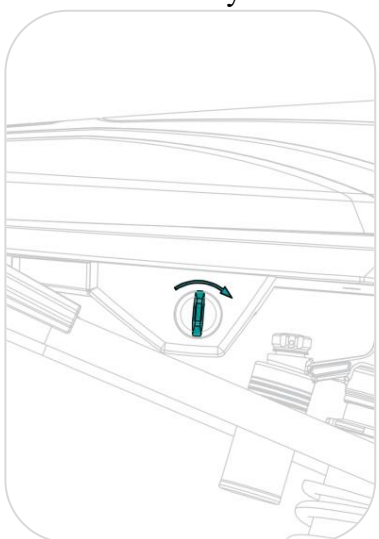
Note: Do not lose the mounting bolt washers.

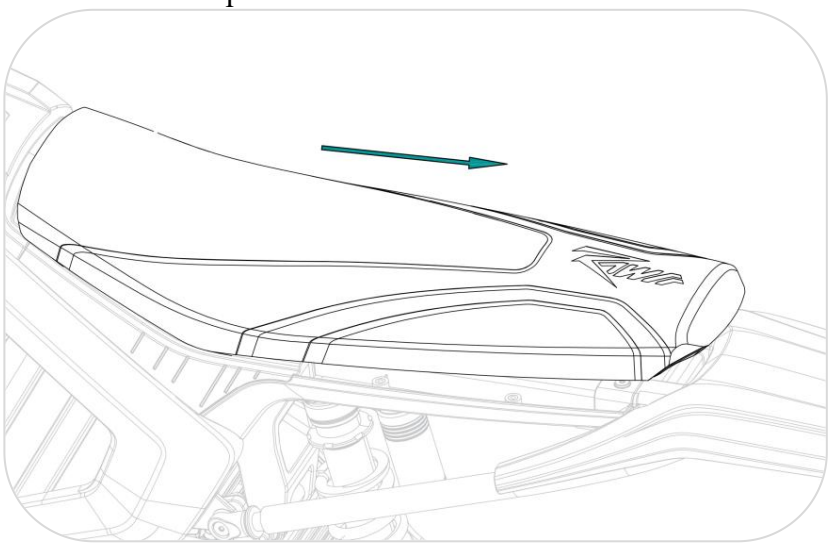




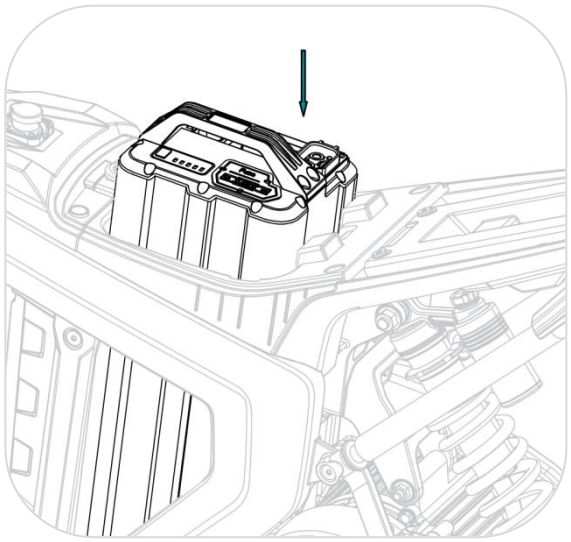
Battery

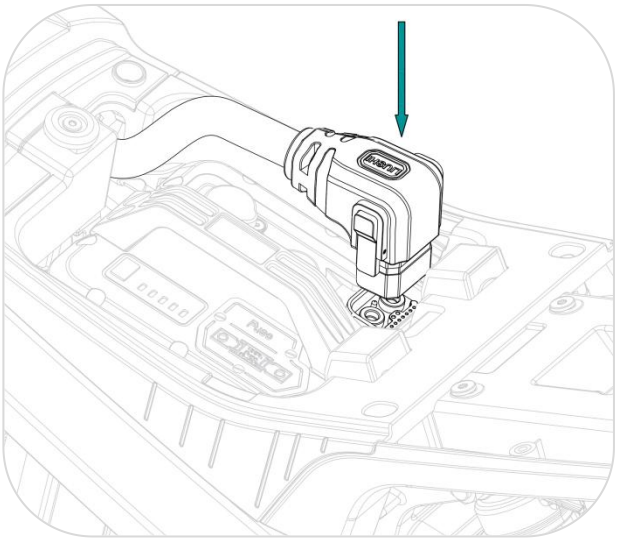
1. Insert the key into the seat lock and open the seat.





2. Insert the battery into the battery compartment (as shown), plug in the discharge connector, and close the seat cover.





Warning: Before inserting the discharge plug, ensure the ignition switch is in the OFF position! Inserting the discharge plug while the ignition switch is ON will trigger the battery's protection mechanism, potentially causing severe internal damage to the battery.

(If this occurs, wait 2 minutes for the battery to recover before attempting to turn the ignition switch ON. If the issue persists, contact Rawrr brand aftermarket support or an authorized service center for inspection and repair.)

4. Riding Preparation

Please ensure you have carefully read page 4 (Safety Precautions) before riding, with special attention to the following:

Check Front and Rear Tires

1. Tires are in good condition with no abnormalities.

2. Typical pressures: Front 200–220 kPa (2.0–2.2 bar ≈ 29–32 psi); Rear 220–250 kPa (2.2–2.5 bar ≈ 32–36 psi).

- Under-inflation may cause abnormal wear, poor steering, lower speed, and reduced range.
- Over-inflation may cause localized tread wear, reduced grip, harsh ride, and even blowouts, creating safety hazards.

Check Dash, Horn, and Brakes

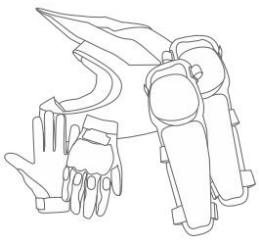
1. Verify that all instrument functions and indicators display normally.
2. Confirm the horn operates properly.
3. Squeeze the left and right brake levers to confirm effective front and rear braking, and verify that the brake cut-off function operates correctly.

Check Handlebars

Handlebars must be securely fastened with no looseness or play. Steering should turn freely and smoothly, with no interference between parts and no abnormal noises.

Adjust Suspension

Adjust the suspension as needed based on riding conditions to meet your comfort and performance requirements.



For your safety, always wear a helmet and other protective gear. A **full-face off-road helmet** is strongly recommended, along with certified off-road protective equipment, to provide you with maximum safety and comprehensive protection.

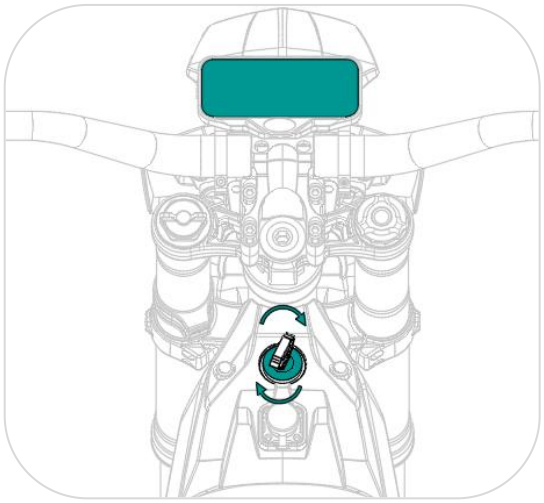
The images above are for reference only.
Always take comprehensive safety precautions.
To eliminate risks, never allow individuals unfamiliar with the performance of this electric dirt bike to operate it.

Special Reminder: Do not ride with one hand, attempt extreme maneuvers, or operate the bike under the influence of alcohol or while distracted. Such behavior carries extremely high safety risks and is likely to result in accidents.

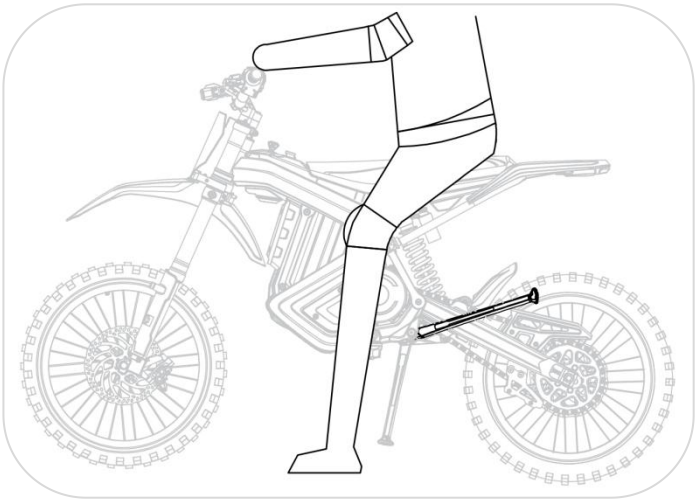
5. Learn to Ride

Start-Up Procedure

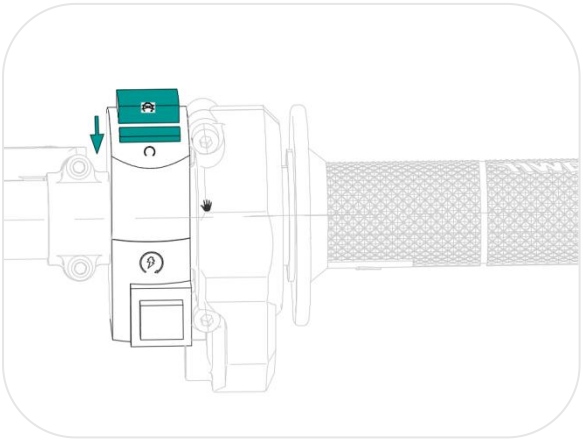
1.Insert the key into the ignition switch and turn it clockwise to power on.Check that the switches, instrument panel, horn, and both front and rear brakes are functioning properly.



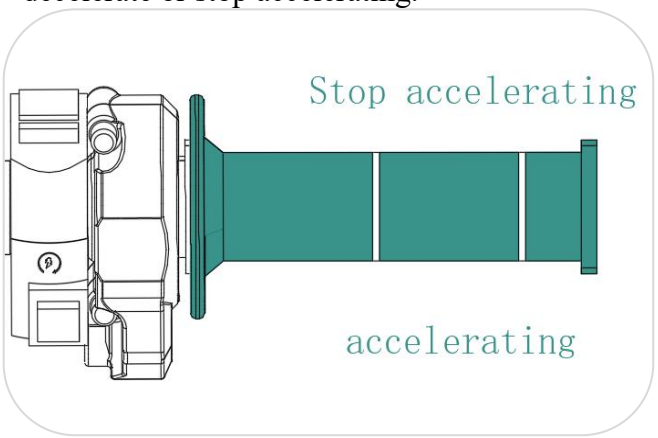
2. Before starting the bike: Sit securely on the bike and retract the side stand.



3. Switch the READY button to the ON position; the instrument panel will display the “READY” icon.



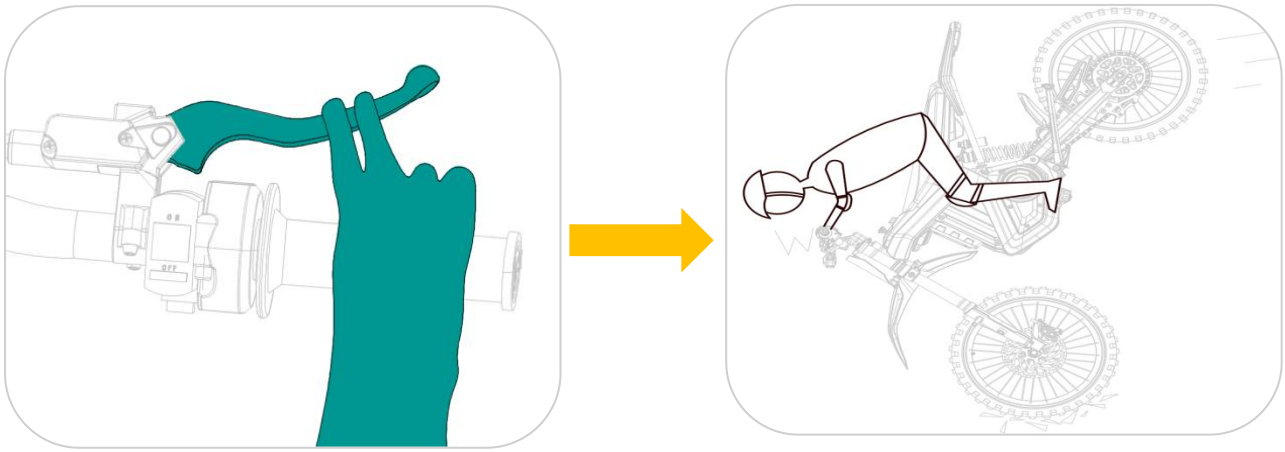
4. Slowly rotate the throttle inward to accelerate, and release it outward to decelerate or stop accelerating.



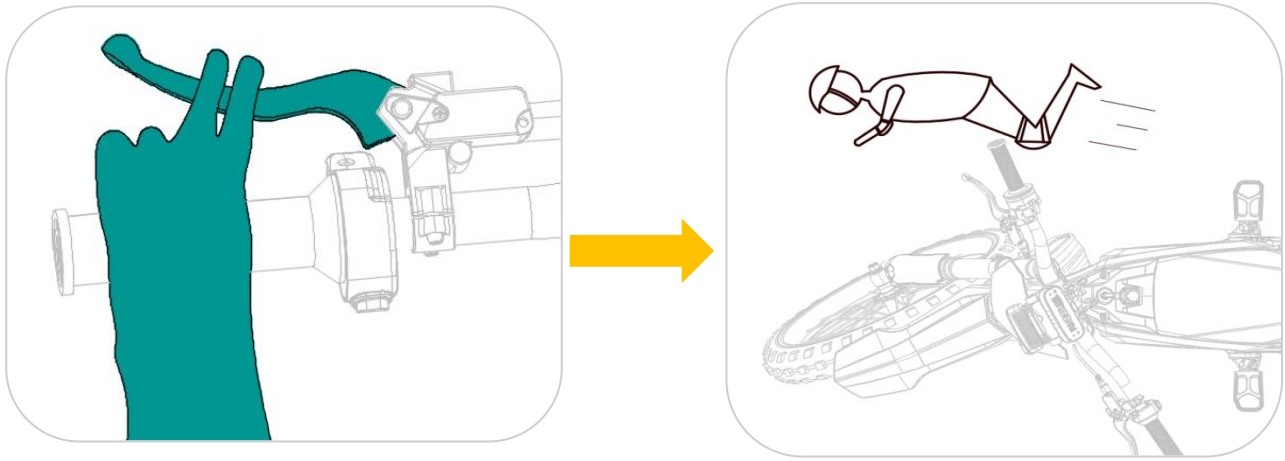
WARNING

Warning: Riders must first become familiar with operating in ECO mode before switching to Sport mode, and only then progress to Race mode.
The throttle must never be twisted carelessly, regardless of the vehicle’s status.Wet or rainy road surfaces are especially slippery and hazardous—ride with extreme caution.

Suddenly squeezing the right brake lever (front brake) while riding may cause the bike to flip forward.

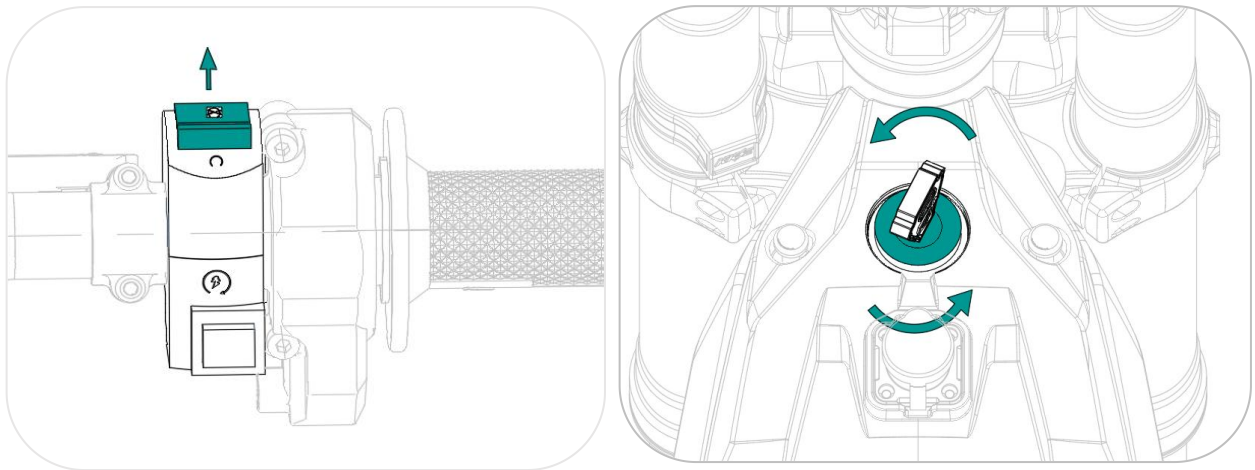


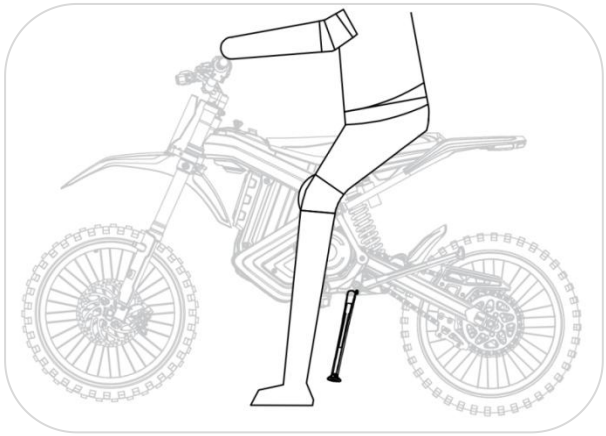
Suddenly squeezing the left brake lever (rear brake) while riding may cause the bike to tip over sideways.

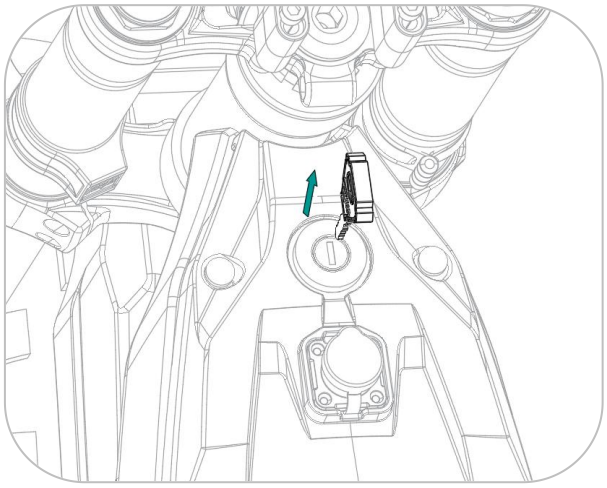


Parking

Pay attention to road conditions and reduce speed as you approach your parking spot.
Once the bike is stable, switch off the READY mode, turn off the ignition, lower the side stand, remove the key, and secure the vehicle.







WARNING

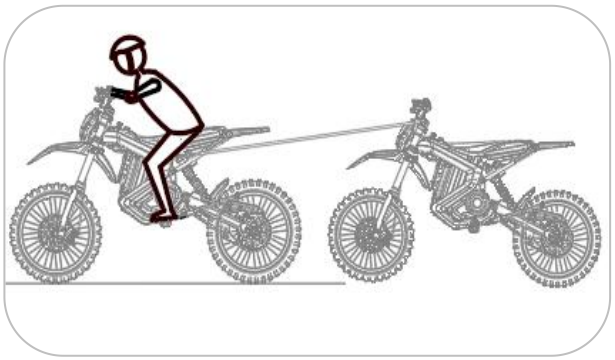
Warning:
When parking (before leaving the electric dirt bike), always deploy the side stand and engage the P-gear parking and shut-off function. Ensure the bike is fully powered off to prevent accidental throttle contact that could lead to an accident.

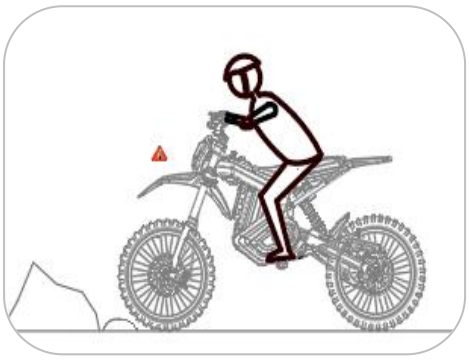
WARNING

Do not drag another bike.

WARNING

Never use mobile phones, cameras, headphones, earplugs, or any other devices that may distract you while riding.



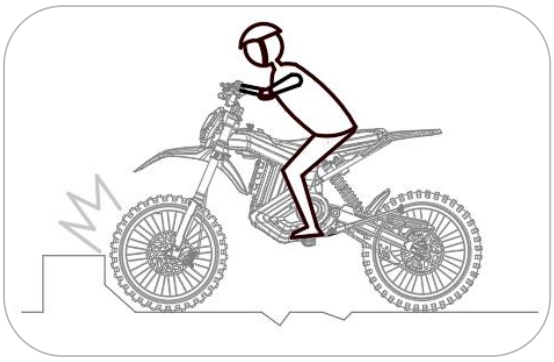


WARNING

When riding in complex road conditions, always proceed at low speed with extra caution.

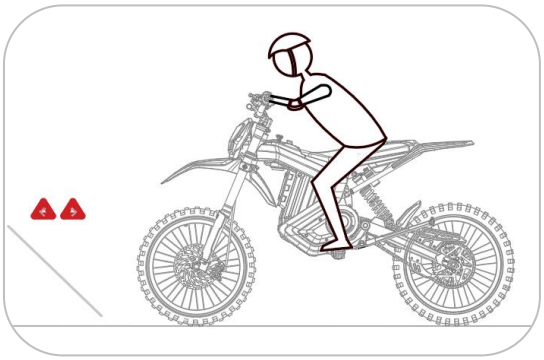
WARNING

Do not ride in severe weather conditions or when extremely fatigued.
Avoid riding through deep water, as this may damage the battery and could even result in personal injury.



WARNING

When approaching a sharp turn ahead, you must slow down and ride carefully at low speed.



WARNING

Always keep both hands on the handlebars, and never exceed the speed limit.

WARNING

Safety Hazards:

Do not engage in dangerous maneuvers.

Do not ride under the influence of alcohol.

Always reduce speed before entering a sharp turn.

6. Usage Instructions

P-Gear Parking Function

1.The bike automatically enters **P-gear parking mode** when powered on.

2. Lowering the side stand also activates P-gear parking mode.

Ready Function

Switching off the **READY** button disables the READY function.

Note: To ride, ensure the side stand is up before switching on the **READY** button. The instrument panel must display the **"READY"** icon before riding.

Vehicle "Power Cut-Off" (Powered On but No Drive Output)

1. Brake cut-off: When squeezing the brake lever, throttle input will not produce power output.
2. Motor overheating protection: Displays Err12.
3. Controller overheating protection: Displays Err11.
4. Battery over-temperature: Battery temperature reaches 70℃ (158℉).
5. Battery undervoltage: Voltage drops below the protection threshold (Err10).
6. Switching off the READY button disables the READY function.

Vehicle Power Reductiont

Controller overheating:

1. When temperature exceeds 85℃ (185℉), gradual derating begins. Each additional 1℃ increases derating by 10%. If overheating continues, power output will be cut down to 20% of the rated value. Operation resumes after the controller cools.

2. Motor overheating:

When temperature exceeds 120℃ (248℉), derating begins. Each additional 1℃ increases derating by 10%. If overheating continues, power output will be cut down to 20% of the rated value. Operation resumes after the motor cools.

3. Battery discharge derating:

When charge drops to 30% (≈66V), derating begins. For each additional 1% drop in charge (≈1V), DC bus current decreases by 5%, until reaching 20%. Below this point, current stabilizes at the minimum output value. At 0% (≈61V), the battery enters undervoltage protection and stops output.

4. Battery at 0%:

Output stops completely. If not recharged in time, the battery may enter over-discharge protection. When SOC ≤ 1%, the battery will enter deep sleep after 24 hours. To reactivate, recharge with the charger or follow the activation method described in Page 39, Troubleshooting, Item 7.

Note for Riders:

Always avoid running the battery to excessively low levels. Frequent deep discharges can shorten battery lifespan. If over-discharge protection is triggered, the battery must be recharged and reactivated before use.

Operating Environment

When ambient temperature is **below 0°C (32°F)**, it is not recommended to use **SPORT** or **RACE** modes, as this may cause battery degradation.

When ambient temperature is **above 40°C (104°F)**, avoid prolonged high-power riding to reduce stress on the system.

Water Exposure

When riding through water, both **depth** and **duration** must be strictly controlled.

Normal Water Crossing Limit: For occasional water exposure, depth should not exceed **24 cm (9 in)**. This is a relatively safe reference threshold.

Extreme Water Crossing Limit: Even in special situations, depth must never exceed **30 cm (11.8 in)**, and the vehicle must not remain submerged for an extended period.

Special Risk Notice: If the motor is at a **high operating temperature**, sudden contact with cold water may cause the air inside to contract rapidly, creating negative pressure at seals or cable joints. This can draw water inside, leading to component damage. In such cases, the above depth limits must be followed even more strictly.

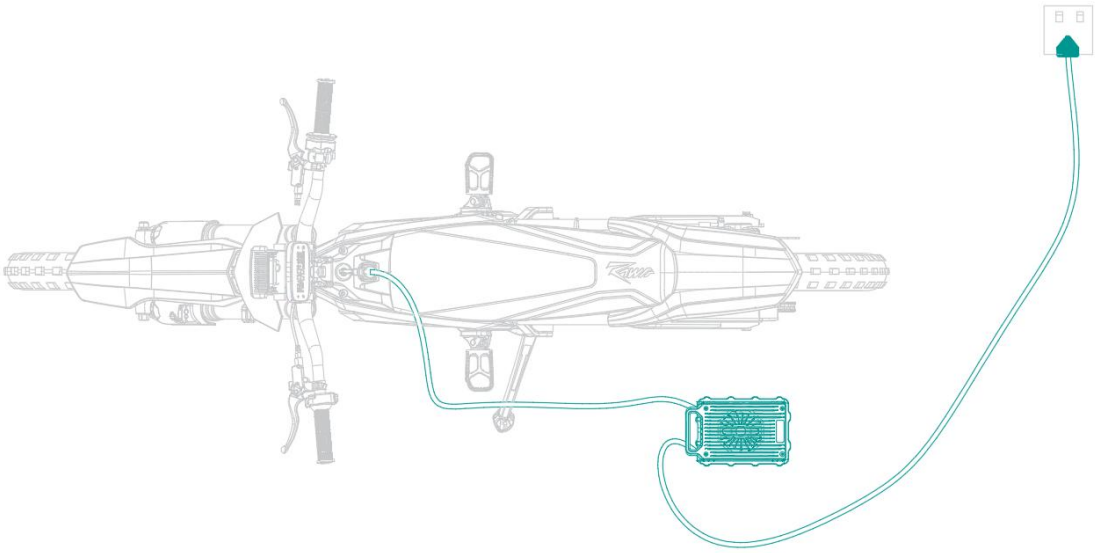
Waterproof Ratings

Battery：IP55
Motor / Controller：IP66
Connectors：IP66-IP67
Whole Bike: IP55

7. Charging Instructions

Bike Charging

Connect the DC output end of the charger to the vehicle's charging port, then plug the AC input end into a household power outlet.



Warnings:

Do not charge the battery below **0°C (32°F)**, as this may cause permanent damage. Wait until the battery temperature rises above freezing before charging.

If the battery has entered **deep sleep mode**, it must not be charged while installed in the vehicle. Remove the battery and charge it separately.

Lithium batteries **do not require** deep discharge. Frequent deep discharging will negatively affect battery lifespan.

Key Points for Lithium Battery Use and Maintenance

Do not attempt to dismantle used lithium batteries. They must be disposed of by a certified professional company.

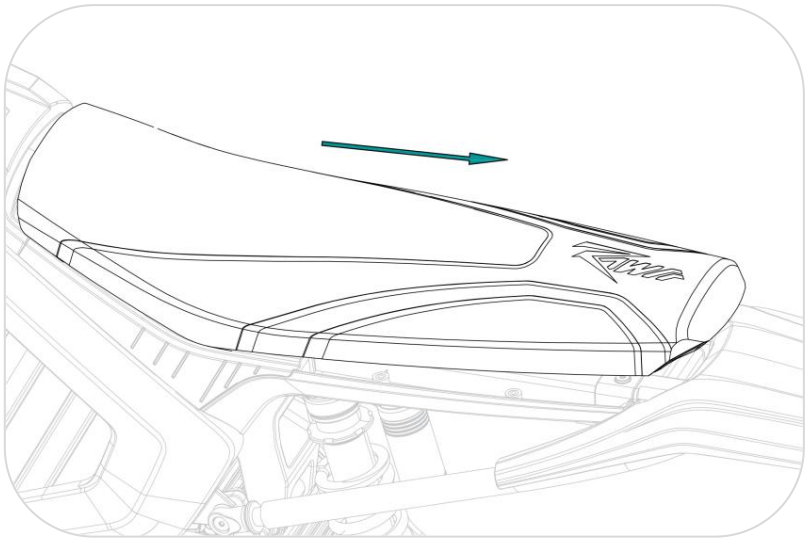
When not charging, always close the rubber sealing cap on the charging port to prevent contamination and damage.

If the vehicle will be unused for **long periods (over one month)**, disconnect the vehicle's discharge plug, cover the discharge socket with its rubber cap, and charge the battery to **about 50%** before storage.

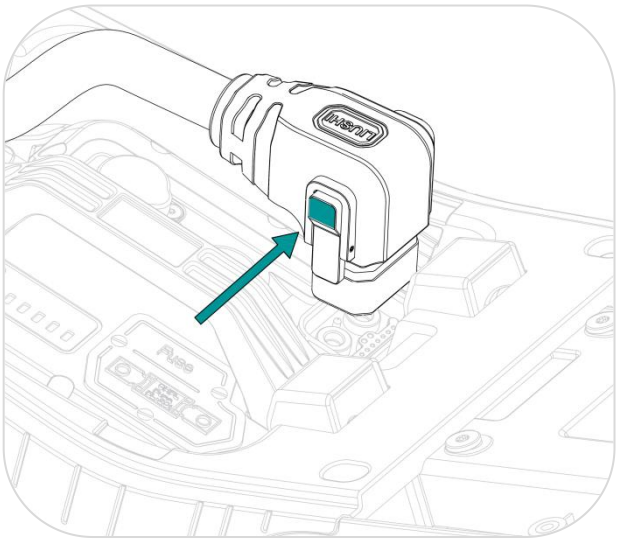
Portable Charging

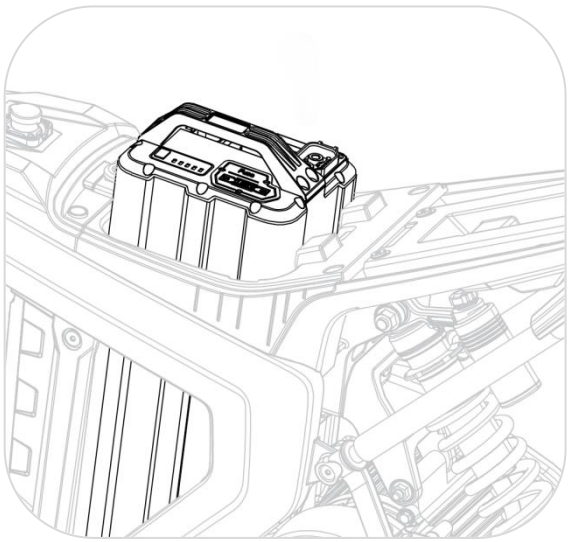
1. Removing the battery

（1） Ensure the ignition switch is in the **OFF** position. Use the key to unlock the seat latch and lift the seat.



（2）Press the side clips to disconnect the power connector, then remove the lithium battery.

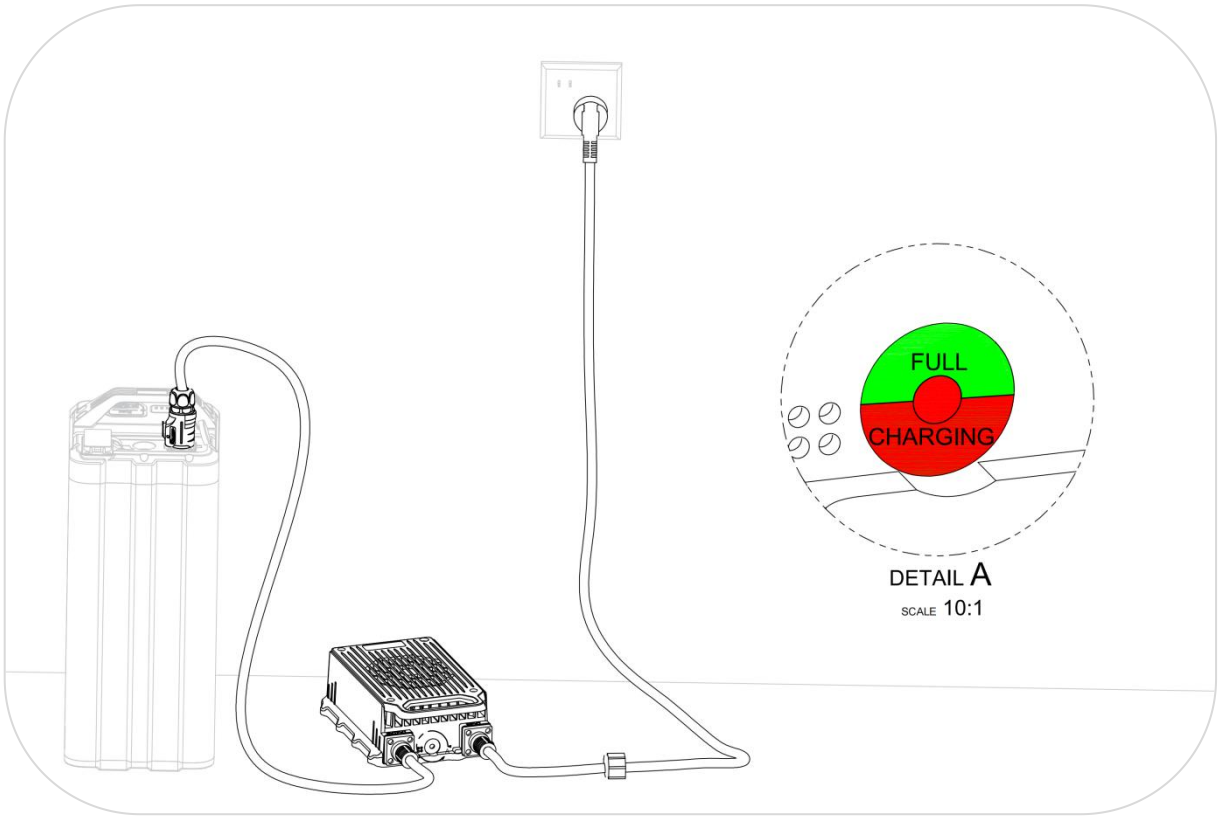




Warning: Always make sure the ignition switch is in the OFF position before disconnecting the discharge plug!

2. **Charging the battery**

(1) Connect the **DC output end** of the charger to the lithium battery's charging port, then plug the **AC input end** into a household power outlet.
(2) When the charger's indicator shows a **solid red light**, charging is in progress. A **solid green light** indicates the battery is fully charged. Once charging is complete, promptly disconnect the power by first unplugging the **AC power cord** from the outlet, then unplugging the **charging connector** from the battery.



About Charging
During charger operation, never place objects on or around the charger, as this may block heat dissipation or create hazards. Always charge in a **dry, well-ventilated area** to ensure proper cooling.

If you notice an unusual odor, feel excessive heat from the charger, or the battery does not reach full charge after an extended charging period, **stop charging immediately** and take the charger to a professional service center for inspection. Do not attempt to disassemble or continue using it on your own.

3.Charger light indicator instructions:

	Working Status	Indicator Status
Light	Standby	Green light flashing at 1Hz
	Charging in progress	Red light steady on
	Pre-charge	Red light steady on
	Fast charging	Red light steady on
	Fully charged	Green light steady on
	Error reported	Red light flashing at 2Hz
	Charger overheating	Red light flashing at 1Hz

Warning:
Always use an **authorized lithium battery charger**. If replacement is required, only use authorized products of the same specification.

Before installing or removing the battery, be sure to switch **OFF** the ignition to avoid electrical faults or battery abnormalities.

Never power on the vehicle if the battery plug is not fully inserted — doing so may cause sparking, which not only poses a serious safety hazard but can also damage electrical components and affect normal vehicle operation.

8. Parameter Table

	Item	**Parameter**
Basic Information	Name	Mantis X Pro
	Overall Dimensions (L*W*H)	1875*795*1130mm
	Gross Vehicle Weight (including battery)	72Kg
	Maximum Load Capacity	100Kg
Key Specifications of Electric Off-Road Motorcycles	Wheelbase	1245mm
	Seat Height	860mm
	Ground Clearance	325mm
	Maximum Speed	≥105Km/h
	Maximum Power	15KW
	Full Charge Range	Speed 66km/h ≥53km
	Gear Mode	Eco / Sport / Race
Body System	Body Type	Double-beam forged aluminum alloy/6061
	Wheel Type	Front Wheel Rim: 1.6×19 Spoke Aluminum Wheel Rear Wheel Rim: 1.85×17 Spoke Aluminum Wheel
	Front Tire Type	Off-Road Tire 70/100-19
	Rear Tire Type	Off-Road Tire 2.75-17
	Drivetrain	428H Chain
	Front Brakes	220mm/4-Piston Pro Hydraulic Disc Type
	Rear Brakes	220mm/4-Piston Pro Hydraulic Disc Type
	Suspension System	Double-Shoulder Fork Type - 200mm Travel
		Adjustable Hydraulic Rear Shock - 70mm Travel
Motor	Rated Power	5000W
	Maximum Torque	45N.m
	Cooling Method	Air-Cooled

	Gradeability	≥45°
	Control System	FOC Sine-Wave Vector Control
Controller	Rated Output Voltage	72V
	Operating Ambient Temperature	-20°~+65°
	Low Battery Protection	60±1V
	Charger Type	Lithium Battery Charger
	Input Voltage	100~240VAC
Charger	Output Voltage	84V
	Output Current	12A
	Handle Specifications	Tapered Aluminum 22mm
	Communication Port	CAN Communication/One-Wire Interface
Other	Lighting System	LED
	Instrument Type	Waterproof High-Brightness VA Meter
	Mobile Phone Charging Port	Type-C Standard Interface

Note: Range may vary significantly depending on testing conditions and rider weight. This data was measured with a rider weighing 220 pounds at an ambient temperature of 26°C.

9. Other Precautions

1. RAWRR is committed to continuously improving product performance. As a result, product specifications and manufacturing processes may be adjusted at any time without prior notice. If there are discrepancies between the icons or images shown in this manual and the actual product, the actual product shall prevail.

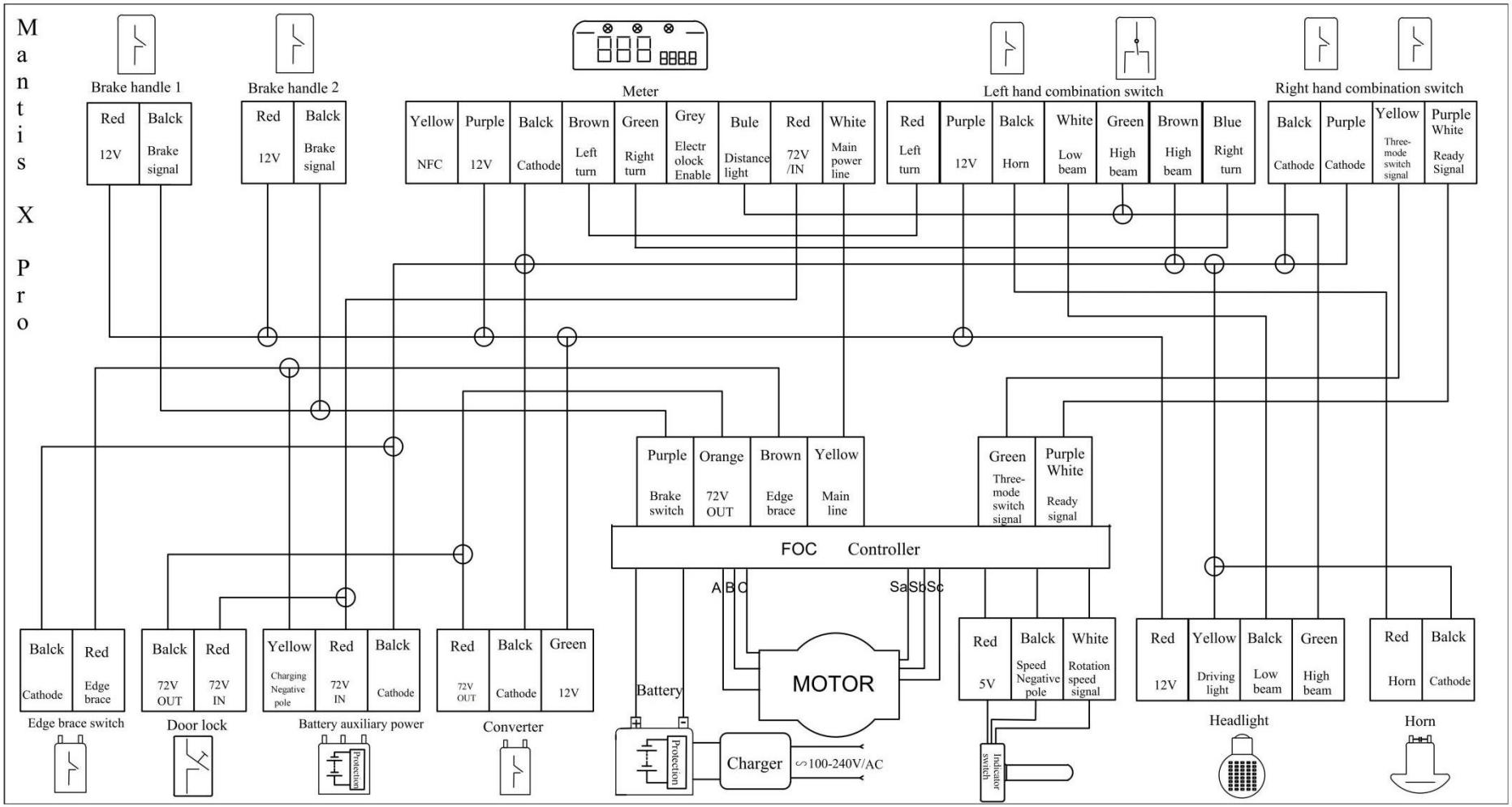
2. RAWRR reserves the right of interpretation of this product statement to the fullest extent permitted by law.

3. If you plan to resell or transfer your RAWRR electric dirt bike, please ensure that this manual is passed along with the vehicle — it is an integral part of the product and provides essential guidance for the new owner.

If you have any questions or require assistance during use, RAWRR is always ready to provide professional support.

We sincerely thank you once again for choosing and trusting our product!

Appendix Electrical Schematic Diagram & Error Code List


Mantis X Pro
Brake handle 1
Red 12V
Balck Brake signal
Brake handle 2
Red 12V
Balck Brake signal
Meter
Yellow NFC
Purple 12V
Balck Cathode
Brown Left turn
Green Right turn
Grey Electr olock Enable
Bule Distance light
Red 72V /IN
White Main power line
Left hand combination switch
Red Left turn
Purple 12V
Balck Horn
White Low beam
Green High beam
Brown High beam
Blue Right turn
Right hand combination switch
Balck Cathode
Purple Cathode
Yellow Three-mode switch signal
Purple White Ready Signal
Purple Brake switch
Orange 72V OUT
Brown Edge brace
Yellow Main line
Green Three-mode switch signal
Purple White Ready signal
FOC Controller
A B C
Sa Sb Sc
MOTOR
Battery
Protection
Charger
100-240V/AC
Balck Cathode
Red Edge brace
Edge brace switch
Balck 72V OUT
Red 72V IN
Door lock
Yellow Charging Negative pole
Red 72V IN
Balck Cathode
Protection
Battery auxiliary power
Red 72V OUT
Balck Cathode
Green 12V
Converter
Red 5V
Balck Speed Negative pole
White Rotation speed signal
Indicator switch
Red 12V
Yellow Driving light
Balck Low beam
Green High beam
Headlight
Red Horn
Balck Cathode
Horn

Controller Error Code List			
Error Codes (Buzzer Beep)	Fault Name	Protective Measures	Troubleshooting
1 (1 short)	Software Overcurrent	Shutdown	1. Restart with the key. 2. Replace the controller. 3. Replace the motor.
2 (2 short)	Motor Overspeed	Shutdown	1. Restart with the key. 2. Replace the controller wiring harness. 3. Replace the controller. 4. Replace the motor.
3 (3 short)	Battery Overvoltage	Shutdown	1. Restart with the key. 2. Check if the controller/circuit breaker power cable is loose. 3. Replace the battery.
4 (4 short)	KEY Power Abnormal	Shutdown	1. Restart with the key. 2. Replace the ignition switch. 3. Replace the battery.
5 (5 short)	Controller 12V Power Abnormal	Shutdown	1. Replace the controller.
6 (6 short)	Controller 5V Power Abnormal	Shutdown	1. Replace the throttle grip. 2. Replace the motor encoder. 3. Replace the controller.
7 (7 short)	Angle Sensor Disconnected	Shutdown	1. Replace the controller Hall sensor wiring harness. 2. Replace the controller. 3. Replace the motor.
8 (8 short)	Hardware Overcurrent	Shutdown	1. Replace the throttle grip. 2. Replace the controller. 3. Replace the motor.
9 (9 short)	Current Closed-Loop Fault	Shutdown	1. Replace the controller.
10 (1 long)	Battery Undervoltage	Derating	1. Charge the battery. 2. Replace the battery.
11 (1 long, 1 short)	Controller Overheating	Derating	1. Turn off the power and allow the controller to cool.
12 (1 long, 2 short)	Motor Overheating	Derating	1. Turn off the power and allow the motor to cool. 2. Replace the controller wiring harness. 3. Replace the motor wiring harness.

13 (1 long, 3 short)	Current sensor malfunction	Shutdown	1. Replace the controller.
14 (1 long, 4 short)	Motor signal interference	Shutdown	1. Replace the controller wiring harness. 2. Replace the motor.
15 (1 long, 5 short)	Throttle signal loss	Shutdown	1.Check if the throttle grip wiring harness is properly connected. 2. Replace the throttle grip. 3. Replace the main wiring harness.
16 (1 long, 6 short)	Throttle reset failure	Shutdown	1. Reset the throttle grip and restart the key. 2. Replace the throttle grip.
17 (1 long, 7 short)	Motor stall	Derating	1. Check if the controller display is loose or misconnected. 2. Check if the drive wheel is jammed. 3. Replace the motor.
18 (1 long, 8 short)	Battery communication disconnection	Shutdown	1. CAN wiring harness is not connected. 2. Replace the controller wiring harness. 3. Replace the power cable. 4. Replace the battery.
19 (1 long, 9 short)	Battery communication failure	Shutdown	1. Replace the battery.
21 (2 long, 1 short)	Brake failure	Shutdown	1. Reset the brake and restart with the key. 2. Replace the brake cut-off wire.

10. Troubleshooting Guide

No	Checklist	Fault Cause Troubleshooting Method	Fault Cause Troubleshooting Method
1	Power on, motor does not operate	1. Loose lithium battery connection wires 2. Throttle handle is closed 3. Motor wiring is loose or disconnected 4. Brake lever fails to return, or brake switch malfunction	1. Check that all connection cables are securely fastened. 2. Repair the plug to ensure a firm connection. 3. Reconnect and tighten the repaired section. 4. Inspect the brake handle and brake switch.
2	Throttle does not function, or maximum speed is low	1. Low lithium battery voltage 2. Throttle grip malfunction 3. Software error	1. Charge the battery 2. Replace the throttle grip 3. Upgrade the corresponding vehicle model software
3	Power on, vehicle does not move or moves with difficulty	1. Tire underinflation 2. Insufficient charging or faulty charger 3. Improper brake adjustment causing excessive rolling resistance 4. Lithium battery degradation or damage 5. Frequent acceleration and deceleration under	1. Inflate tires to proper pressure 2. Ensure battery is fully charged or inspect charger plug contacts 3. Readjust brakes 4. Replace battery 5. Utilize the environment to minimize the scope of normal phenomena

		uphill and headwind conditions	
4	Charger does not charge	1. Charger plug detached or loose connection 2. Battery pack connection cable plug loose 3. Charger error or damage 4. Charger overheating 5. Battery under-temperature or over-temperature	1. Insert the plug or connector and check if it is fully seated. 2. Open the seat cushion battery and tighten the plug cap. 3. Inspect or replace the charger. 4. Wait for the charger temperature to return to normal. 5. Wait for the battery temperature to return to normal.
5	Seat unopen	1. Key not fully turned 2. Seat lock malfunction	1. Reinsert the key and turn it fully 2. Visit an authorized service center to replace the seat lock
6	During the ride, the vehicle emitted unusual noises.	1. Chain tension is improper/too loose 2. Wheel misalignment 3. Loose spokes	1. Adjust chain tension/seal tightness 2. Adjust left and right jacks to center the tire 3. Tighten spokes
7	The battery cannot discharge.	1. Battery over-discharge 2. Prolonged lack of charging with SOC ≤ 1%, entering deep sleep mode after 24 hours 3. Battery overheating during discharge 4. Battery water ingress	1. Press and hold the battery light panel button for 3 seconds. Once the battery light panel illuminates, it enters forced activation mode. 2. Connect the charger to activate the battery. The battery enters normal charging mode. Alternatively, press and hold the battery light panel button for 3 seconds. Once the battery light panel illuminates, it enters forced

			activation mode. 3. Wait for the battery temperature to return to normal levels. 4. Inspect or replace the battery.
8	Brake not functioning	1. Worn friction pads 2. Loose brake lever	1. Replace friction pads 2. Tighten brake lever
9	Other malfunctions	1. Damaged motor, controller, charger, or battery 2. Other malfunctions that cannot be resolved independently	If any of the above situations occur, promptly contact the supplier or an authorized service center for assistance. Note: Unauthorized disassembly of the above components is strictly prohibited. Doing so will automatically void the product warranty.
10	Displaying P gear	1. Side stand not deployed 2. One-touch kill switch activated 3. Damaged side stand or switch 4. P-mode switch not disengaged in the app	1. Lift the kickstand 2. Activate one-touch kill switch 3. Repair or replace 4. Connect to the app to unlock

11. Maintenance Guide

In principle, under normal riding conditions, it is recommended to perform the **first inspection (or first maintenance)** after riding **10–30 km**.

1. Check the tension of the front and rear wheel spokes.
2. Check for any play in the front steering column bearings.
3. Check the chain tension.
4. Check the shock absorbers for oil leakage or reduced travel. *(Note: Do not over-rotate the adjustment knobs during adjustments.)*
5. Check the tightening torque of the bolts securing the handlebars.

Special Reminder: Always switch off the power before performing any inspection or maintenance.

Safety Considerations During Inspection

1. Choose a spacious area to park the vehicle.
2. When stopping for inspection, select a safe location and pay attention to the surrounding environment.
3. If any abnormality is found, resolve it before continuing to ride. If the issue cannot be fixed on your own, contact after-sales service or an authorized service center.

Additional Notes

1. The front and rear brakes use disc brake systems; replace brake pads before they become severely worn.
2. In daily use, keep the disc brake system clean. Avoid prolonged accumulation of dirt or sand and prevent oil contamination.

Linkage (Grease & Bearing) Inspection

I. Linkage Grease (Lubricant) Replacement Cycle

1. Normal conditions (regular terrain): Inspect every **500–1000 km**; replace grease every **1000–2000 km**.

2. Harsh conditions (muddy, wet, or dusty terrain): Inspect after each high-intensity off-road ride; replace grease every **500–1000 km** to prevent sand and debris from mixing with grease and accelerating wear.

3. Long-term storage: If the vehicle has been parked for more than **3 months**, reapply grease before use to prevent oil degradation or drying.

Note: When replacing grease, thoroughly clean out the old lubricant and use a **high-temperature, water-resistant grease** (e.g., off-road grade motorcycle grease, lithium-based grease). Do not use regular grease, which may fail after high heat exposure or water immersion.

II. Linkage Bearing Replacement Cycle

The replacement cycle for swingarm bearings is not fixed; it depends largely on riding intensity, maintenance frequency, and environmental conditions.

1. Signs that bearings may need replacement:

- **Unusual noises:** Clicking, grinding, or scratching sounds when riding or moving the swingarm.
- **Looseness:** Noticeable play or clearance when manually shaking the swingarm.
- **Stiffness:** Rear swingarm movement feels rough or jammed.
- **Rust/damage:** On disassembly, bearings show rust, pitting, wear, or deformation on balls or races.

2. Reference replacement intervals (based on industry and user experience):

- **High-intensity off-road/competition:** Inspect every **100–300 hours** of riding (or every **1–3 months**); replace immediately if issues are found.
- **Moderate off-road/recreational riding:** Inspect every **500–1000 km** (or every **3–6 months**); replace as needed.
- **Pccasional riding + occasional off-road:** Inspect at least **once a year**; if no abnormalities, replacement can be extended to **2–3 years** with regular maintenance.

III. Key Maintenance Practices to Extend Linkage Bearing Life

- **Regular cleaning & lubrication:** After muddy or water-crossing rides, clean around the bearings and reapply high-temp, water-resistant grease (e.g., lithium-based grease).
- **Inspect seals:** Replace damaged swingarm seals or nylon spacers promptly to prevent contaminants from entering grease and bearings.
- **Correct torque tightening:** Tighten swingarm bolts to manufacturer-specified torque to avoid excessive play (causing wear) or overtightening (causing stiffness).
- **Avoid overloading:** Do not ride with sustained overloads to minimize excessive impacts on the rear swingarm.

Operational Component Inspection

1. Shock Absorbers:Inspect for bends, deformation, or damage. If front shocks are damaged or leaking, move the handlebars up and down to check for abnormal noises.
2. Brake Lever:Check that brake lever free play is within the specified range (15–30 mm). Adjust if measurements fall outside this range.
3. Brake Effectiveness: On a dry, flat road, perform a low-speed ride test. Test front and rear brakes separately to confirm proper braking performance.

4. Inspection of Tires, Spokes, Chain Guide, and Chain

The tires of your bike are in constant contact with the ground and are highly susceptible to damage from road hazards such as rocks, glass, or nails. Always remain alert to road conditions and avoid areas that may pose a risk to tire integrity. When the tires are cool, use a tire pressure gauge to check air pressure.

5. Check for cracks, damage, or abnormal wear.
6. Inspect the rims and spokes for looseness.
7. Check chain tension: the proper vertical play is 10–15 mm at the mid-span.
8. Measure the tire tread groove depth.

Pay special attention to tread groove depth. When the wear reaches two-thirds of the tread wear indicator (raised cam within the groove), the tire should be replaced promptly to ensure riding safety.

If abnormal tire noise occurs during riding (e.g., persistent unusual sounds or irregular rubbing noises), or if the bike shows significant vibration, immediately contact the RAWRR After-Sales Service Center or an authorized service provider for a comprehensive inspection and repair to prevent further damage and ensure riding safety.

Brake System Reminder:
If braking performance is unsatisfactory even after firmly pulling the brake lever:
First check the disc brake pads for cleanliness and sufficient thickness. Clean or replace them as needed.
If issues persist after maintenance, contact the RAWRR After-Sales Service Center or an authorized service provider to have the brake system thoroughly inspected and serviced, ensuring reliability and safety.

Lithium Battery Inspection

1. Voltage Check

To check the status of the electric dirt bike's lithium battery, first confirm the charge level on the dashboard. Then, use a multimeter to measure the voltage across the charging port terminals. Under normal operating conditions, the battery voltage should fall within the range of 61V – 84.6V.

2. Appearance Check

Inspect the battery casing for any damage, cracks, or deformation. Pay special attention to the top/bottom sealing covers and the power indicator light. If sealing failure occurs, water ingress may result. Should such issues be detected, contact the RAWRR After-Sales Service Center or an authorized service provider immediately.

Note：

1. Always ensure the ignition switch is OFF before removing or installing the battery. Seal the charging port with the rubber cover before inserting the battery. After removal, cover both the charging port and discharge port with their respective rubber caps.

2. If the battery cannot be fitted into the compartment, do not force it in. Check for foreign objects that may be obstructing proper placement.

3. For winter storage, keep the battery in a battery storage room or explosion-proof cabinet at temperatures above 0℃. Regularly check the battery's condition to maintain stable performance.

Battery Charging and Charger Use

1. Always use the original, model-compatible charger supplied with the bike. Do not use mismatched chargers, as this may damage the battery or cause safety hazards.

2. Confirm the charger's input voltage matches your local power grid/mains supply.

3. The charger will automatically shut off when the battery is full, but do not leave the charger connected to the mains indefinitely. After charging, disconnect within 6 hours maximum to minimize risk.

4. For safety reasons, users are strictly prohibited from disassembling the battery themselves.

5. If the battery enters over-discharge or under-voltage protection mode, it must be reactivated with the charger. Refer to Page 39, Item 7 (Fault Symptoms & Troubleshooting) for the activation procedure.

Electrical Components – Use and Maintenance

1. Regularly check that the motor mounting bolts are secure.

2. Inspect the motor and controller wiring for looseness and insulation integrity.

3. Check the air switch wiring to ensure it is properly connected and tightened.

4. Verify that all switch components' bolts are secure and properly insulated.

Note: If the motor or controller temperature becomes excessively high, or if the battery power is insufficient, the electric dirt bike will automatically enter a power-reduction mode. This is a normal protection mechanism and does not indicate a fault.

Motor Operation, Care, and Maintenance

Operation

1. During operation, the motor should not produce intermittent or abnormal noise or vibration.

2. Do not operate the bike without adding gear oil to the reduction gearbox.

3. If the motor overheats and triggers thermal protection, discontinue riding immediately.

Maintenance

Initial Service: Perform the first scheduled maintenance when the bike reaches 400 miles.

Gear Oil Replacement: Use GL-4 85W-90W gear oil, fill approximately 60 mL.

Metal Debris and Impurity Cleaning:

1. Remove iron filings attached to the drain plug.
2. Thoroughly clean residual iron debris from inside the gearbox.
3. Wipe away dust and debris around the filler plug to ensure cleanliness.
4. Check all bolts to ensure they are properly tightened.

Post-First Maintenance – Assembly Checks:

a. Inspect motor sensor signals. If Hall wires are damaged or signals are missing, replace them promptly.

b. Check the mounting of the assembly and tighten any loose fasteners immediately.

c. Inspect sealing surfaces and oil seals. Replace damaged seals to maintain proper sealing.

d. Replace gear oil every 400 – 1,000 miles, depending on riding conditions.

Severe Usage Conditions – Replace Gear Oil Every 100–400 miles:

a. Frequent riding in muddy, wet, or dusty conditions (contaminants can enter the oil).

b. Regular high-intensity off-road riding (climbing, jumping, prolonged low-speed heavy load).

c. Use of non-OEM specified gear oil (low-grade oils may have poor shear resistance).

d. Long-term use with aging gearboxes (weakened seals increase oil contamination risk).

12. Warranty Guide

Rawrr Electric Dirt Bike After-Sales Service

To protect your rights, please keep this manual in a safe place. Upon purchase, inspect and test the vehicle at the dealership. Request the sales staff to provide correct usage and maintenance guidance, along with valid documentation including: Purchase invoice, Warranty card, Service center address and contact number.

If you encounter a quality-related issue during use, you may present the purchase invoice and warranty card at an authorized Rawrr service station for maintenance or repair. Warranty coverage applies only to defects or failures not caused by human factors.

No	Name		Failure Factor	Coverage	Note
1	Motor	Brushless motor	Unable to operate normally	1 year (1,000 miles)	Excluding human factors (Motor must be in original condition)
2	Batter y	Lithium-ion Battery	Capacity below 60%	1 year (1,000 miles)	Excluding human factors
3	Electri cal Comp onents	Controller	Failure occurred and cannot be repaired	1 year (1,000 miles)	Excluding human factors (Product must be in original condition)
		Instrument Cluster, Throttle, Main Harness	Failure occurred and cannot be repaired	1 month (100 miles)	
		Function Switch, Power Lock, Horn, Converter, Other Connecting Harnesses	Failure occurred and cannot be repaired	1 month (100 miles)	
	Struct ural Comp	Complete Bike, Rear Shock Absorber	Fracture or shock absorber	1 month (100 miles)	Excluding human factors (brake

4	onents		failure		components excluding pads)
		Front Shock Absorber	Shock absorber failure	1 month (100 miles)	
		Chain, Sprocket, Wheel Rim	Performance failure	1 month (100 miles)	
		Brakes	Oil leakage or ineffective braking	1 month (100 miles)	
		Frame	Frame failure	12 month (1,000 miles)	

During the warranty period, if any of the above components fail and cannot be restored to normal operation through repair, they will be replaced free of charge.

The following items are considered wear parts: tires, brake pads, steering bearing assemblies, front and rear fenders, seat cushions, lights, rearview mirrors, reflectors, etc. For non-quality-related issues, contact Rawrr brand aftermarket services or authorized service centers for paid replacement or repair.

13.Maintenance and Repair Record Card

Regular Maintenance Record Card		
Maintenance Schedule	Materials required for maintenance	Technician / Signature
100 miles / 1 month	Inspection of fasteners, chain tension, brakes, spokes, etc., for the entire bike	
400 miles / 3 months after initial warranty period	Inspection of safety component fastenings, high-voltage circuitry, chain tension, motor, brakes, spokes, etc., for the entire bike	
600 miles / 6 months	Inspection of high-voltage current circuits, brake fluid circuits, brake pads, spokes, and chain tension	

Notes:
1. Users must have the mandatory maintenance items described in the “Regular Maintenance Record Card” performed on time at designated authorized dealer.
2. Failure to perform maintenance on schedule may void the warranty.
3. After completing the above maintenance cycles, it is recommended to schedule maintenance every 800-1500 kilometers. Regular upkeep effectively prevents various issues caused by prolonged neglect, ensuring stable vehicle performance and driving safety.

Warranty Record Card		
Service Date	Warranty Status Record	Technician / Signature