



OWNER'S MANUAL UPDATES

The following information updates your ebike's Owner's Manual. Please read it carefully. Keep your owner's manual and any other documents that came with your ebike. All content in this update and the manual is subject to change or withdrawal without notice. Visit www.radpowerbikes.eu/help to view and download the latest version. Rad Power Bikes makes every effort to ensure the accuracy of its documentation and assumes no responsibility or liability if any errors or inaccuracies appear within.


 **WARNING:** Incorrect assembly, maintenance, or use of your ebike can cause component or performance failure, loss of control, serious injury, or death. Even if you're an experienced bike rider, **you must read and understand the entire manual and any documentation provided for subcomponents or accessories before riding.** If you are not sure you have the experience, skills, and tools to correctly perform all assembly steps in the manual and the assembly video at www.radpowerbikes.eu/help, consult a local, certified, reputable bike mechanic.


 **WARNING:** To reduce the risk of injury, close supervision is necessary when the product is used near children.

Guard against rust, water damage, and corrosion

Like any vehicle used outdoors, your ebike needs care to ensure it isn't damaged by the elements. Follow these steps for a long, healthy life for your ebike:

- Store under shelter and in an upright position; avoid leaving the bike in the rain or exposed to corrosive substances such as water, salt, or de-icing substances. If exposed to rain, dry your bike afterward, and apply an anti-rust treatment to the chain and other unpainted steel surfaces.
- To clean your ebike, turn the bike and battery off and wipe the frame with a clean, damp cloth. If needed, apply a mild, non-corrosive detergent mixture to the damp cloth and wipe the frame. Dry by wiping with a clean, dry cloth. Never use high-pressure water on your bike. Wipe down your bike frequently and wipe or spray all unpainted mechanical parts with anti-rust treatment.
- If painted metal parts become scratched or chipped, use touch up paint or nail polish to prevent rust.
- Never immerse or submerge the bike or any components in water or liquid, which can damage the electrical system.
- Avoid riding on the beach, in coastal areas with high-salinity fog, or on surfaces treated with salt or de-icing compounds. Doing so exposes your bike to salt or other substances that are very corrosive. Corrosion of electrical components can lead to permanent, irreversible damage that can cause battery failure, electrical system failure, or electrical fire. Damage from corrosion is not covered under warranty.

 **WARNING:** Damage to your ebike's electrical system caused in any manner, including water intrusion, can lead to battery failure, electrical system malfunction, or electrical fire and consequent property damage, injury, or death. Follow all recommendations to minimize chance of water damage. If you have any questions, contact Rad Power Bikes Product Support.

 **WARNING:** Using a damaged battery or charger can create additional bike damage or a fire hazard. Stop using your battery and charger and contact Rad Power Bikes immediately if any of the following occur: (1) Your charger's flexible power cord or output cable or any of the electrical cables on your bike is frayed, has broken insulation, or any other signs of damage, (2) Your battery or charger is physically damaged, non-functional, or performing abnormally, (3) Your battery or charger experienced a significant impact from a fall or crash, with or without obvious signs of damage, or (4) Your charger becomes too hot to touch (it's designed to get warm with normal use), makes a funny smell, or shows other signs of overheating. Store any damaged battery or charger in a safe location and, as soon as possible, recycle or otherwise dispose of it according to local rules. Contact Rad Power Bikes if you have any questions or to purchase a compatible replacement battery or charger.

How the electrical system works

This ebike is equipped with two ways for a rider to use power assistance from the motor to propel the bike forward: a pedal assist system (PAS) and a twist power assist.

HOW PEDAL ASSIST WORKS

The rider can engage the pedal assist system (PAS) while pedaling, and it will call up assistance from the motor to help propel the bike forward.

Pedal assist uses a cadence sensor built into the drivetrain of the bike. The sensor detects when the rider revolves the pedals and signals the electric motor to provide the level of pedal assistance (PAS 0-5 on most models and 0-4 on the RadRunner and RadMission) that has been selected.

HOW THE TWIST POWER ASSIST WORKS

To engage the twist power assist while pedalling, slowly and carefully rotate the twist power assist grip backwards towards yourself. When the bike is on and you are pedalling at an adequate cadence, the twist power assist function acts as an adjustable, on-demand pedal-assistance boost. It is not designed to be used when the rider is not pedalling.

Do not touch the brake rotor



WARNING: Touching the brake rotor, which has sharp edges and can get very hot while you're riding, can cause serious injury, slicing damage, or burns. The brake rotor heats up from normal friction when the brake pads press against the brake rotor to slow or stop the bike. Touching the brake rotor with bare skin can also transfer natural oils to the rotor, which can decrease braking performance. **Do not touch the brake rotor, especially when it's in motion or after you've been riding your bike.** Touch the brake rotor only for necessary maintenance when it is cool, not moving, and while you are wearing gloves or using other appropriate protective equipment.



Warranty update

Notwithstanding the warranty information in the manual, the warranty period begins at the date of receipt of this ebike by the customer. The latest version of the warranty terms is available at www.radpowerbikes.eu/terms.



RADRHINO

RAD POWER[®] BIKES

OWNER'S MANUAL

Welcome

Thank you for purchasing the RadRhino® from Rad Power® Bikes.

We take pride in bringing you a quality product that will offer years of enjoyment.

If you have questions after reading this manual, please reference the Rad Power Bikes Help Center, contact us by email, and/or give us a call on the phone.

We are here to help!

Please visit:

Website: www.radpowerbikes.eu

Help Center: www.radpowerbikes.eu/pages/owner-tools

Contact us:

Email: eu-support@radpowerbikes.com

Call: +31-85 7470430

Thanks for Riding RAD!

Using This Manual

This manual contains details of the product, its equipment, and information on operation, maintenance, and other helpful tips for owners. Read it carefully and familiarize yourself with the ebike before using it to ensure safe use and prevent accidents. Be sure to retain this manual as a convenient ebike information source. More information is available at www.radpowerbikes.eu.

This manual contains many warnings and cautions concerning safe operation and consequences if proper setup, operation, and maintenance are not performed. All information in this manual should be carefully reviewed and if you have any questions you should contact Rad Power Bikes immediately. The notes, warnings, and cautions contained within the manual and marked by the triangular Caution Symbol (depicted at right) should also be given special care. Users should also pay special attention to information marked in this manual beginning with **NOTICE**.



Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representations about the safe use of bikes under all conditions. There are risks associated with the use of any bike, which cannot be predicted or avoided, and which are the sole responsibility of the rider. Keep this manual, along with any other documents that were included with the ebike, for future reference, however all content in this manual is subject to change or withdrawal without notice. Visit www.radpowerbikes.eu/pages/owner-tools to download the latest version. Rad Power Bikes makes every effort to ensure accuracy of its documentation and assumes no responsibility of liability if any errors or inaccuracies appear within. Assembly and first adjustment of the bike from Rad Power Bikes requires special tools and skills and it is recommended that this should be done by a certified, reputable bike mechanic if possible.

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General Info

RadRhino Vehicle Category

The ebike is a 250W (watt) pedelec. Please check relevant legislation in the locations you intend to ride for a full understanding of all necessary legal requirements for operating the ebike.

Licence Plate Installation

Depending on the location of use, a driving permit or licence, insurance, and/or number plate may be required to operate the RadRhino 250W pedelec. Please inform yourself regarding all applicable legislation before using the pedelec and ensure a licence/number plate, if required, is properly secured.

Mandatory Equipment and Use Locations

Before all rides, ensure you have all required and recommended safety equipment and are following all laws pertaining to using an electric bike in your region. For example, these laws may include the need for mandatory equipment, use of hand signals, and where you can ride.

Assembly and Fit

Correct assembly and fit are essential elements of ensuring your bicycling safety, performance, and comfort. If you have the experience, skill, and tools to complete these essential steps before your first ride, Rad Power Bikes recommends having a certified, reputable bike mechanic check your work.

NOTICE: If you do not have the experience, skill, and tools to complete assembly and fit, Rad Power Bikes highly recommends having a certified, reputable bike mechanic complete these procedures as well as any future adjustments or tuning.

NOTICE: A critical aspect of assembling the bike from Rad Power Bikes is securing the front wheel and checking the tightness of the rear wheel axle nuts. All bikes by Rad Power Bikes use a quick release front wheel mounting mechanism and the rear wheel is bolted on. Both wheels need to be properly secured before operating the bike.

Safety Check Before Each Ride

Always check the condition of the bike before you ride in addition to having regular maintenance performed. If you are unsure of how to conduct a complete check of the condition of the bike before every ride, you should consult a certified, reputable bike mechanic for assistance. See the [Pre-Ride Safety Checklist](#) section of this manual for more information.

Electrical System

The electrical system on the ebike offers various levels of power assistance and lighting for different operating conditions and user preferences. It is critical that you familiarize yourself with all aspects of the ebike's electrical system and check to see that it is working correctly before every ride. The front and rear brake levers contain safety power cutoff switches, which disable the hub motor's assistance when applied, and both levers should be checked for correct operation. The Twist Power Assist should provide smooth acceleration when gradually applied while pedalling. If the Twist Power Assist, brake lever cutoff switches, pedal assistance, or lighting is not functioning normally, intermittent, or not working, please discontinue use of the ebike immediately and contact the Rad Power Bikes Product Support for assistance.

Brakes

Ensure brakes are working correctly, all braking system components are free from damage, and properly secured. When you fully squeeze the brake levers, ensure neither the front nor rear brake levers touch the handlebar. Take the bike to a certified, reputable bike mechanic to have the brakes repaired if you find a problem.

Tyres and Wheels

The wheels should always spin straight and must be repaired or replaced if they wobble side to side or up and down when spinning. If the wheels become untrue or spokes loosen, do not attempt to true or tighten them unless you have adequate knowledge, tools, and experience. It is recommended that a certified, reputable bike mechanic performs all wheel tuning and truing operations on the bike from Rad Power Bikes. Ensure the tyres and inner tubes are in good working condition without any visual damage and have the correct amount of air pressure. Always replace tyres and inner tubes with punctures, cuts, or damage before you ride. Tyres without the correct amount of air pressure can reduce performance, increase tyre and component wear, and make riding the bike unsafe.

Quick Release Levers

Quick release levers are located throughout the ebike for securing the seatpost and the front wheel to the bike. These provide convenience to the user since they allow the front wheel to be removed, and the seatpost to be adjusted without tools. Since quick release levers can be loosened during transportation, or accidentally between or during rides, it is important that you regularly check to ensure these components are properly secured.

Handlebar, Grips, and Seat Adjustments

Check to ensure the handlebar, handlebar stem, and seatpost are properly fastened, aligned, and fitted to the user. Ensure all the hardware securing the handlebar and seat are properly tightened, including all quick release levers. Loose, worn, or damaged handlebar grips should be replaced before you ride.

Battery Charged, Secured, and Unplugged

Ensure the battery is fully charged and operating properly. The battery gauge on the LCD display and battery mounted charge status indicator should read similarly. The battery MUST be locked onto the frame battery mount properly before use. Ensure the battery charger is unplugged from the battery and put away before you ride.

Accessories, Straps, and Hardware

Ensure all hardware is secured and all approved accessories are properly attached per the specific component manufacturer's instructions. It is good practice to look over all hardware, straps, and accessories before each ride and if you do discover something is wrong or find something you are not sure about, please have it checked by a certified, reputable bicycle mechanic.

Changing Components or Attaching Accessories

The use of non-original components or spare parts can jeopardize the safety of the ebike, void the warranty, and in some cases cause the ebike to not conform with laws pertaining to the bike.



The replacement of original components or installation of third-party accessories or accessories from Rad Power Bikes not explicitly recommended for the bike model, is at your own risk. Using aftermarket accessories or components that have not been tested by Rad Power Bikes for safety and compatibility may void the warranty, create an unsafe riding condition, damage the bike or property, or result in serious injury and/or death.

Assembly Instructions

Fully Assembled RadRhino



NOTICE: The following assembly steps are only a general guide to assist in the assembly of your ebike by Rad Power Bikes and is not a complete or comprehensive manual of all aspects of assembly, maintenance, and repair. We recommend you consult a certified, reputable bike mechanic to assist in the assembly, repair, and maintenance of your bike.

Step 1: Unpack the bike.

Open the bike box and remove the small box inside. With the help of another person capable of safely lifting a heavy object, remove the RadRhino from the bike box. Carefully remove the packaging material protecting the bike frame and components. Please recycle packaging materials, especially cardboard and foam, whenever possible. Open the small box and carefully set out all contents.

The following should be included with the RadRhino:

Front Wheel	Manual(s)	Assembly Toolkit	Handlebar Stem faceplate bolts (4x)
Front Fender	Charger	Pedals (marked left and right)	Fender bolts (with blue threadlocker) (4x)
Rear Fender (installed)	Headlight	Keys (2x, identical)	Front Wheel Quick Release (in fork protector plate)

If there are any missing parts, please contact Rad Power Bikes.

Step 2: Install handlebar onto stem as shown in the assembly video for the RadRhino located on the web page www.radpowerbikes.eu/owner-tools.

Place the handlebar on the stem correctly. Trace the front brake cable directly up from the front brake calliper to the left handlebar and ensure the cables and wires are not twisted.

- A. **Locate the four handlebar faceplate bolts in the accessory box.**



Ensure the correct four bolts are used to install the handlebar faceplate. The handlebar faceplate bolts use a 5 mm hex wrench and are silver with NO blue threadlocker.

- B. **Centre the handlebar** and tighten the four stem faceplate bolts evenly and part way.
- C. **Adjust the stem angle** using the hex bolts on the side of the stem if desired. Adjust the handlebar so the grips will be approximately parallel to the ground when then front wheel is installed.
- D. **Adjust the handlebar** so the grips are approximately parallel to the ground when the front wheel is installed.
- E. **Secure to the recommended torque value.** Once adjusted properly, use a torque wrench with a 5 mm hex bit to evenly tighten the four stem faceplate bolts (shown at right) to the recommended torque value, 10 Nm.



Get help from a bike fitting professional for safety and optimal fit. Consult a certified, reputable, and local bike fitting specialist for assistance properly fitting the bike to a rider.

Step 3: Install the front wheel.

Locate the quick release lever, which holds the protector plate in place during shipment. Open the lever and remove the thumb nut and cone spring (opposite the lever). Remove the quick release skewer from the plate, keeping the washer and other cone spring in place on the lever side.



Install the skewer into the front wheel axle from the brake rotor side. Reinstall the cone spring so it points towards the wheel hub then thread the thumb nut onto the skewer only a couple of turns, leaving room for the fork dropouts. Make sure the lever is open and carefully lower the fork onto the axle and brake calliper.

Fully seat the skewer in the fork dropouts (and the brake rotor in the calliper) and add tension to the lever by turning the thumbnut. When there is enough resistance to hold the quick release lever in line with the axle, close the lever using the palm of your hand without touching the brake rotor.

When properly installed, the front wheel should be fully seated and centred in the dropouts of the front fork, the brake rotor should be in between the brake pads in the brake calliper, and the quick release lever should be fully and properly secured. Ensure the front wheel and quick release lever are properly secured before moving on to the next step.

For detailed instructions please view the RadRhino Assembly Video available on the web page www.radpowerbikes.eu/owner-tools.



CAUTION: Never touch the brake rotor, especially when the wheel and/or bike is in motion, or serious injury could occur. Hand oils can cause squeaking and decrease brake performance; do not touch the brake rotor while inspecting, opening, or closing the quick release lever.



WARNING: An improperly secured front wheel and/or handlebar stem can cause loss of control, accidents, serious injury, or death. Check that the front wheel and handlebar stem are properly secured to the bike during assembly and before each ride.

Step 4: Perform a handlebar twist test to ensure the handlebar stem is secure.

- A. **Brace the front wheel.** Stand at the front of the bike, facing the handlebar, and brace the front wheel between your feet and lower legs.
- B. **Try to twist the handlebar.** Hold both handlebar grips and push forward with one hand while pulling back with the other. Push and pull at the same time with about 20 lb of force with each hand.
- C. **Ensure the handlebar and wheel stay properly aligned.** The handlebar and handlebar stem should be tightly secured perpendicular to the front wheel.
- D. **Repeat the twist test pulling/pushing with the opposite hands,** again with 20 lb of force pulling with one hand and 20 lb of force pushing with the other.
- E. **If needed, align the handlebar and stem and torque the stem clamp bolts evenly** to the specification for the handlebar stem clamp bolts in the Recommended Torque Values table below.
- F. After torquing the stem clamp bolts to the proper specification, perform the twist test again. If the handlebar still moves, contact Product Support.



WARNING: If you are not sure you have the experience, skills, and tools to correctly perform all steps to properly secure and verify the security of the handlebar, front wheel, and handlebar stem you **MUST** consult a certified, reputable bike mechanic to check your work and/or secure those components to the bike properly.

Step 5: Install the front fender and headlight as shown in the assembly video available from the web page www.radpowerbikes.eu/owner-tools.

- A. **Remove the fender and headlight mounting bolt** from the fork arch and set aside.
- B. **Place the fender in position.** From the back of the front tyre, pass the front fender mounting point under the front fork arch.
- C. **Plug in the headlight.** Locate the two sides of the red, two-pin headlight connector, carefully align the internal pins and notches and external arrows, then press directly together without twisting to fully seat the connection.
- D. **Attach the headlight and fender to the fork arch.** Pass the headlight mounting bolt through a washer, the headlight mount, the fender mounting point, the fork arch mounting point, a second washer, and thread the locknut onto the bolt end. Use a 5 mm hex wrench at the bolt head and a 10 mm wrench on the locknut at the bolt end and tighten partway. Attach the fender mounting arms to the front fork. Ensure the fender is centred and torque all mounting bolts to the recommended torque value (6 Nm).
- E. **Adjust the headlight angle** to illuminate the road ahead and not blind oncoming traffic. Use a 3 mm hex wrench and 8 mm wrench to loosen the headlight angle adjustment bolt, tilt the headlight to the optimal position, and then tighten in place securely.

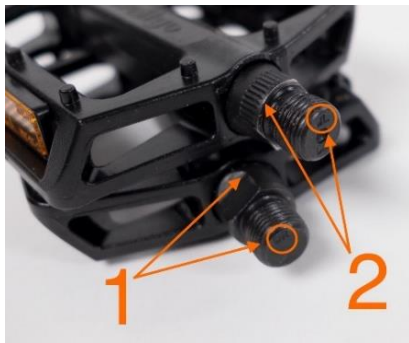


Step 6: Install the pedals. Locate the pedal with a smooth pedal axle exterior and an “R” stamped into the end of the pedal axle (1, below), which indicate it is the right pedal. The right pedal goes on the crank on the right side of the bike (which has the drivetrain gears and is the same as a rider’s right side when riding).

The right pedal (1) is threaded so that it is tightened by turning clockwise. Carefully thread the right pedal onto the crank on the right side of the bike slowly and by hand. Do not cross thread or damage the threads.

The left pedal (2) is reverse-threaded and tightens anticlockwise. Ensure the remaining pedal has notches on the exterior of the axle and an “L” stamped into the end of the axle (2, below), indicating it is the left pedal. Carefully thread the pedal onto the left crank by hand slowly. Do not cross thread or damage the threads.

Torque each pedal to 35 Nm. Use a pedal wrench to avoid damage caused by wider wrenches.



Identifying marks



Right pedal (1) tightens clockwise



Left pedal (2) tightens *anticlockwise*

Step 7: Inflate the tyres. Check that the tyre beads and tyres are evenly seated on the rims. Use a pump with a Schrader valve and pressure gauge to inflate each tyre to the recommended pressure indicated on the tyre sidewall, 20 PSI (1.38 Bar). Do not overinflate or underinflate tyres.



Step 8: Set the desired seat height. Open the quick release lever by hinging it open fully. Ensure the seatpost clamp opening is aligned with the notch at the front of the seat tube. Adjust the seatpost up or down to a comfortable height, while ensuring the seatpost is inserted into the frame past the minimum insertion point.



If needed, use the thumb nut to add tension to the clamp so there is some resistance when the lever is in line with the clamp bolt, but do not overtighten. Close the quick release lever to secure the seatpost and check that it cannot move. See the Adjusting the Seat section of this manual for more details.

Step 9: Always check that the battery is locked to the frame of the RadRhino before riding. The Start-Up Procedure section of this manual has more information on the key positions of the battery; on and locked to the frame, off and locked to the frame, and off and unlocked (ready for removal from the frame). Operate the electrical system when the battery has been adequately charged and the battery is secured to the mounting receptacle on the frame.



Step 10: Ensure all hardware is tightened properly following recommended torque values.

Recommended Torque Values

Hardware Location	Hardware	Torque Required (Nm)
Handlebar Area	Handlebar Stem Clamp Bolts	15
Handlebar Area	Stem Faceplate Bolts	10
Handlebar Area	Brake Lever Clamp Bolt	6
Handlebar Area	Shifter Clamp Screw	6
Brakes	Calliper Adapter to Frame	6-8
Brakes	Calliper to Adapter	6-8
Brakes	Brake Cable to Calliper Clamp	6-8
Brakes	Brake Rotor to Hub	7
Seat Post Area	Seat Angle Adjustment Bolt	20
Rear Dropout Area	Rear Axle Nuts	40
Rear Dropout Area	Rear Torque Arm Bolt	5
Rear Dropout Area	Derailleur Bash Guard Mounting Bolts	5
Rear Dropout Area	Derailleur Hanger Mounting Bolt	6
Rear Dropout Area	Derailleur Mounting Bolt	10
Rear Dropout Area	Derailleur Cable Pinch Bolt	6-8
Rear Dropout Area	Kickstand Mounting Bolts	8
Bottom Bracket and Crank Area	Bottom Bracket and Lockring	60
Bottom Bracket and Crank Area	Crank Arm Bolt into Bottom Bracket Spindle	35
Bottom Bracket and Crank Area	Pedal into Crank Arm	35
Bottom Bracket and Crank Area	Chainring Bolts	10
Bottom Bracket and Crank Area	Controller Mounting Bolts	6
Fenders	All Fender Mounting Bolts and Hardware	6
Optional Rear Rack	Mounting Hardware for Rear Rack	7

Step 11: Review the remainder of the manual. Once the bike has been assembled per the above instructions and the assembly video available from the web page www.radpowerbikes.eu/owner-tools, read, understand, and follow the procedures outlined in the remainder of the manual before operating the bike.



WARNING: If you have any questions regarding the assembly of your bike, contact Rad Power Bikes. If you are not able to ensure all the assembly steps in the assembly video are performed properly, or you are unable to view the assembly video, you **MUST** consult a certified, reputable local bike mechanic for assistance in addition to contacting Rad Power Bikes for help.



WARNING: Do not extend any components including the handlebar stem, seatpost, or seat saddle beyond any minimum insertion marking etched into the components. Ensure that all hardware is properly tightened (to the values in the Recommended Torque Values table), components are secured, and all safety checks have been performed before moving on to the next step and before your first ride, otherwise damage to the bike, property, serious injury, or death could occur.

Rider Comfort

Depending on a rider's preference, ability, and experience with bike and ebike riding, lowering the seat so the rider can put one or both feet on the ground without dismounting from the seat may offer a safer, more comfortable experience while riding. Generally, for the most comfortable riding position and best possible pedalling efficiency, the seat height should be set correctly in relation to the rider's leg length (see the Adjusting the Seat Height section), allowing the knee to be slightly bent with the ball of the foot on the pedal while the pedal is at the bottom of the pedal stroke.

It is generally advised to ensure the handlebar and brake lever angles allow for a comfortable arm position and relatively straight line from forearms, wrists, and hands. Riders should not overextend their arms' reach when riding. Ensure the handlebar angle is adjusted so that it allows the handlebar to remain clear of the rider's body while turning. A bike fitting professional, such as a certified, reputable bike mechanic who specializes in bike fit, should be consulted to ensure you have a good fit.

Adjusting the Seat Height

For most users, the seat height should be set by placing the ball of their foot on the pedal when the crank is at its lowest point. In this orientation their leg should be almost fully extended, with a slight bend at the knee. The correct seat height should not allow leg strain from overextension and the hips should not rock from side to side when pedalling. To adjust the seat height:

- 1) Open the quick release lever by swinging the lever open and outwards fully (depicted above).
- 2) Move the seat up and down by sliding the seatpost in or out of the seat tube. Set the desired seat height.

NOTICE: Ensure the seatpost and seat are properly adjusted before riding. DO NOT raise the seatpost beyond the minimum insertion marking etched into the seatpost tube (as shown at right). If the seatpost projects from the frame beyond these markings (shown far right), the seatpost or frame may break, which could cause a rider to lose control and fall. Ensure the minimum insertion markings on the seatpost are inside the seat tube of the frame (as pictured below).

- 3) After tightening the adjustment nut (opposite the quick release lever) on the seatpost quick release properly, close the quick release lever fully so it looks like the image below and the seat cannot move up, down, to the left, or right.



Before using the bike, always check to ensure all latches, levers, and quick releases are properly secured and undamaged. Check that they are correctly secured before every ride and after every time the bike is left unsupervised, even for a short time. Otherwise, the handlebar stem and/or seatpost may come loose and can result in loss of control, property/bike damage, serious injury, or death.

Adjusting the Seat Position and Angle

To change the angle and horizontal position of the seat:

Use a 6 mm hex wrench to loosen the seat adjustment bolt (pictured at right) underneath the seat on the clamp positioned immediately underneath the seat, above the rear wheel.

You can now move the seat backwards or forwards in the guide and adjust the angle of the seat. A seat position horizontal to flat ground is desirable for most riders. There are white limit markings on the seat rail, which show the minimum and maximum horizontal movement allowed for this component. Do not exceed these limits.

While holding the seat in the desired position, use a 6 mm hex wrench to tighten the seat adjustment bolt securely.



NOTICE: Prior to first use, be sure to tighten the seat clamp via the seat adjustment bolt properly. A loose seat clamp or seatpost adjustment bolt can cause bike/property damage, loss of control, a fall, serious injury, or death. Periodically check to make sure that the seat clamp is properly tightened.

NOTICE: If you have any questions regarding the proper fit of your bike, please consult a certified, reputable local bike mechanic for assistance fitting the bike to a rider or contact Rad Power Bikes.

Adjusting the Suspension Fork

The suspension fork can move up and down up to 80 mm to cushion bumps in the riding surface, which can make riding on a rough road or trail smoother and more comfortable. Depending on a rider's preference, the suspension fork can be locked out as a rigid fork, which will typically yield higher pedalling efficiency.

The lockout lever (1), located on top of the right side of the suspension fork, can be turned anticlockwise until it stops to completely lock out the suspension fork's travel. To unlock the lockout lever, turn the knob clockwise until it stops.

When the lockout lever is unlocked, resistance can be adjusted by turning **the preload adjustment knob (2)**, located on the top of the left side of the suspension fork. To soften the ride, subtract resistance by turning the preload adjustment knob anticlockwise, in the direction of the small "-" on the knob. To make the suspension stiffer when going over bumps, add resistance by turning the preload adjustment knob clockwise, in the direction of the small "+" on the knob.



Battery Charging

Charging Procedure

Follow these steps for charging the bike from Rad Power Bikes:

1. **Ensure the battery is off**, by inspecting the key port markings (1, below). If needed, align the key port with the “off, locked” icon, the small circle with an “X” inside by inserting the key into the key port and rotating to align the key with the off icon as shown (at right).
2. **Remove the rubber cover on the charging port** (2, below) on the opposite side of the battery from the key switch.
3. **Plug the charger into the battery’s charging port.** With the battery on or off the bike, place the charger in a flat, secure place, and connect the DC output plug from the charger (round barrel connector) to the charging port on the side of the battery (2, below).
4. **Plug the charger into a power outlet.** Connect the charger input plug (110/220-volt plug) to the power outlet. Charging should initiate and will be indicated by the LED charge status lights on the charger turning red.
5. **Unplug the charger from the outlet, then the charging port.** Once fully charged, indicated by one charging indicator light turning green (and one remaining red), unplug the charger from the wall outlet first and proceed to remove the charger output plug from the battery charging port.



Always charge the battery in temperatures between 10°C - 25°C (50°F - 77°F) and ensure the battery and charger are not damaged before initiating charge. If you notice anything unusual while charging, please discontinue charging and use of the bike and contact Rad Power Bikes for help.



Battery Charging Information

- **Check the charger, charger cables, and battery for damage** before beginning each charge.
- **Always charge in a safe area** that is cool*, dry, indoors, away from direct sunlight, dirt, or debris, in a clear area away from potential to trip on the charging cords, or for damage to occur to the bike, battery, or charging equipment while parked and/or charging. *Always charge the battery in temperatures between 10 °C – 25 °C (50 °F – 77 °F).
- **The battery can be charged on or off the bike.** To remove the battery, turn the key to the off and unlocked position (see the [Start-Up Procedure](#) section for details), remove the key from the key port by pulling directly backwards without twisting, and then carefully pull the battery forward and up until the battery detaches from the receptacle. See the [When Removing the Battery](#) section for more information for off-bike battery handling.
- **The battery should be recharged after each use**, so it is ready to go the full range per charge next ride. There is no memory effect, so charging the battery after short rides will not cause damage.
- **Charging the battery normally takes 3-7 hours.** In rare cases, it may take longer to allow the battery management system to balance the battery, particularly when the bike is new or after long periods of storage. Balance the battery during the first three charges. See the [Balancing the Battery](#) section for more information.
- **The charge indicator lights** will show two red lights while the battery charges. When charging is complete, one indicator light will turn green, so one green, and one red will be illuminated. Ensure the lights face upward when charging.
- **Remove the charger from the battery within one hour of the green light indicating a complete charge.** The charger is designed to automatically stop charging when the battery is full, but unnecessary wear of the charging components could occur if the charger is left attached to the battery and a power source for longer than 12 hours. Detach the charger as soon as possible once the green light indicates a complete charge to avoid unnecessary wear of charging components.
- **Never charge a battery for more than 12 hours at a time.**
- **Do not leave a charging battery unattended.**



Failure to follow the best practices outlined in the Battery Charging Information section could result in unnecessary wear to the charging components, battery, and or charger, and could lead to an underperforming or non-functional battery and replacement will not be covered under warranty.

When Removing the Battery

- **Ensure the battery is turned off** and the key is removed from the key port whenever it is being removed or off the bike.
- **Be careful not to drop or damage the battery** when loose from the bike.
- **Do not touch the “+” and “-” terminal contacts** on the bottom of the battery when the battery is removed from the bike.
- **Do NOT operate the bike with the electrical system in the on position**, or damage to the electrical system can occur.



Use caution to avoid damage to battery connector terminals, which are exposed when the battery is unlocked and removed from the frame of the bike. In the case of damage to the terminals or battery mounts, please discontinue use and contact Rad Power Bikes Product Support immediately.

When Installing the Battery onto the Bike

- **Ensure the battery is turned off** and the key is removed from the key port before sliding the battery into the frame mount receptacle.
- **Do not force the battery onto the receptacle**; slowly align and push the battery down into the receptacle.
- **Ensure the battery has been properly secured** to the bike before each use by carefully pulling upwards on the battery with both hands to test the security of the attachment of the battery to the mount once locked.

Charging Time

When the input and output plugs of the charger are connected properly, and the battery is not fully charged, the two red charging indicator lights should illuminate; when charging is complete, one red and one green light should illuminate. The time the charger takes to fully charge the battery is dependent on various factors including distance travelled, riding characteristics, terrain, payload, and battery age. The following table provides an estimate of charge time based on most common distances travelled in regular operation:

Distance Travelled	Estimated Time to Fully Recharge
8 km (5 mi)	1 hour
16 km (10 mi)	1.5 hours
24 km (15 mi)	2.5 hours
32 km (20 mi)	3.5 hours
40 km (25 mi)	4.5 hours
48 km (30 mi)	5.5 hours
88 km (55 mi)	7 hours

Notice: The battery may take longer to charge when fully depleted, when very new, and after 3-5 years of regular use. If the battery does not seem to be charging normally, takes longer to charge than expected, or you are experiencing substantial reduction in range, please discontinue use and contact Rad Power Bikes Product Support immediately.

Charger Safety Information

- The charger should only be used indoors in a cool, dry, ventilated area, on a flat, stable, hard surface.
- Avoid charger contact with liquids, dirt, debris, or metal objects. Do not cover the charger while in use.
- Store and use the charger in a safe place away from children and where it cannot suffer damage from falls or impact.
- Fully charge the battery before each use to ensure it is ready to go the full range per charge, to extend the life of the battery, and help reduce the chance of over-discharging the battery.
- Do not charge the battery with any chargers other than the one originally supplied from Rad Power Bikes or a charger designed for use with the specific bike purchased directly from Rad Power Bikes.
- The charger works on 110/230 V 50/60 Hz standard home AC power outlets and the charger automatically detects and accounts for incoming voltage. Do not open the charger or modify voltage input.
- Do not yank or pull on the cables of the charger. When unplugging carefully remove both the AC and DC cables by pulling on the plastic plugs directly, not pulling on the cables.
- The charger will get hot when operating as designed. If the charger gets too hot to touch, you notice a strange smell, or any other indicator of overheating, discontinue charger use immediately and contact Rad Power Bikes Product Support.



Charge the battery only with the charger originally supplied with the bike from Rad Power Bikes, or a charger purchased directly from Rad Power Bikes, designed for use with the specific bike serial number, as approved by Rad Power Bikes. Never use an aftermarket charger, which can result in damage, serious injury, or death.



Please take special care in charging the bike from Rad Power Bikes in accordance with the procedures and safety information detailed in this manual. Failure to follow proper charging procedures can result in damage to the bike, the charger, personal property, serious injury, or death.

Balancing the Battery

When you first receive the bike and for the first three times you charge the battery from Rad Power Bikes, follow the procedure outlined below to ensure the cells that power the battery are balanced and operating as efficiently as possible.

Note: Since the battery should arrive with between 50-75% of a charge, it should be able to be ridden without initially charging once assembled and verified as safe by a certified, reputable bike mechanic. Charging normally before the first ride is also fine.

1. **After the first, second, and third ride**, regardless of distance ridden or the amount of battery used, charge the battery and leave the charger attached to the battery and the outlet for **as close to 12 hours as possible (but not longer than 12 hours)**.
Note: this may require leaving the charger attached to the battery and outlet even after the charger illuminates one green (and one red) light indicating the battery is full.
2. **Disconnect the charger from the outlet then the battery once the first balance charge (long charge as close to, but not longer than, 12 hours) is complete** and store the bike until you are ready for your next ride.
3. **Ride the bike again** with power assistance as normal, and discharge part (or all) of the battery capacity.
4. **Repeat steps 1-3 for a total of three balance charging sessions (as close to, but not longer than, 12 hours).**
5. **After the third balance charge and fourth ride, begin normal charging procedures** including:
 - Charging the battery after each ride according to the [Battery Charging Best Practices](#) section.
 - Removing the charger from the battery as close to the green charge light indicating the battery is full, which will typically occur between 3-7 hours.
 - Never leaving the battery charging for longer than 12 hours.
 - Never leaving the battery/charger unattended while charging.

Repeat battery balancing steps 1-5 only after a period of long-term battery storage (see the [Long-Term Battery Storage](#) section), if experiencing noticeable range decline, when instructed to do so by Rad Power Bikes Product Support, or up to once per month with frequent use as proactive battery maintenance. Do not perform battery balancing more than once per month.

Long-Term Battery Storage

If storing the bike from Rad Power Bikes for longer than two weeks at a time, follow the instructions below to maintain the health and longevity of the battery.

- Charge (or discharge) the battery to approximately 75% charged.
- Power off the battery either locked to the frame or unlocked and removed from the frame for storage (see [Start-Up Procedure](#) section for key-position details).
- Store the battery in a dry, climate controlled, indoor location between 10 °C - 25°C (50 °F – 77 °F).
- Check the battery every month, and if necessary, use the charger from Rad Power Bikes to charge the battery to 75% charged.



Please follow the above instructions for storing the bike and battery from Rad Power Bikes. Failure to follow proper battery storage procedures can result in a non-functional battery and replacement will not be covered under warranty.



If the battery is physically damaged, non-functional, performing abnormally, or was dropped or involved in a crash, with or without obvious signs of damage, please discontinue use and charging, place in a safe location, and contact Rad Power Bikes immediately.



Do not cover up the charger when plugged in or charging. The charger air-cools and needs to be on a hard, flat surface in an open space. Use the charger with the indicator lights facing upwards. Do not use with the charger inverted, which can inhibit cooling and reduce charger lifespan.



Do not open the battery housing, which will void the warranty and can result in damage to the battery, property, serious injury, or death.

Operation

NOTICE: Do not perform any of the steps in the Operation section of this manual until you have read this entire manual, since there are important details related to safety in the following sections.

NOTICE: Even if you are an experienced bike user, please take the time to read and implement the guidelines described in the owner's manual accompanying the ebike, and any other manuals that may be included with specific components.



Read and understand all sections of this entire manual before operating the bike for the first time. There are important safety warnings throughout the whole manual that must be followed to prevent dangerous situations, accidents, injury, or death.



Users must follow the instructions and warnings contained in this manual for safety. Do not attempt to operate the bike from Rad Power Bikes until you have adequate knowledge of its control and operation. Damage caused by failing to follow instructions is not covered under warranty and could result in personal injury to you and others, and damage to property and/or the bike from Rad Power Bikes. Contact Rad Power Bikes if you have any questions about assembly or operation.



Users must become accustomed to the bikes' power control system before operating. The Twist Power Assist mechanism allows a power boost while pedalling, and inexperienced users should take extra care when first applying the Twist Power Assist. The pedal assistance feature is also a powerful option and users should fully understand how to operate it before first use. Not taking care to familiarize yourself and practise the operation of the power system on the bike from Rad Power Bikes can lead to damage, serious injury or death.

Battery Key Positions

Familiarize yourself with the key port and key positions before riding the bike. The photo below shows the key port aligned in key position 1, in line with the small open circle icon. In key position 1, the battery is in the “on” position, with the battery locked to the frame, and the key removed so the bike is ready to ride.

Key Position/ Icon	Description
1	On, locked to frame
2	Off, locked to frame
3	Off, unlocked from frame (for battery removal)
4	Key identifier code

- **If the battery is in key position 1**, (on, locked to the frame) the display power button will turn the bike on and off, but the battery cannot be removed.
- **If the battery is in key position 2**, (off, locked to the frame) no buttons or controls can be activated, the bike will remain off, and the battery cannot be removed.
- **If the battery is in key position 3**, (off, unlocked from the frame) the battery must be removed from the bike before moving or riding the bike. Ensure the key is removed before sliding the battery off the mount.



Handlebar Features



Location on Handlebar	Component
1	Bell
2	LCD Display Remote
3	LCD Display
4	Shifter
5	Twist Power Assist / Walk Mode (while dismounted)

LCD Display Controls

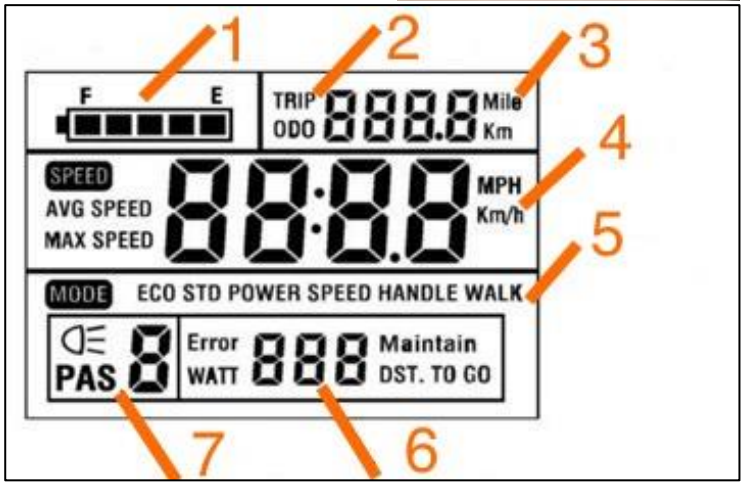
The display is controlled using the 3-button display remote mounted on the left side of the handlebar (depicted at right). The top button shows an arrow pointing UP (1), the middle button is labelled “MODE” (2), and the bottom button shows an arrow pointing DOWN (3). Reference the [LCD Display Operations](#) table in this manual for instructions on how to perform various operations using these buttons and, when applicable, other components of the bike.



LCD Display Information

The table and image below show the various features and information displayed on the LCD display.

Location	Information on Display
1	Battery Charge Indicator
2	Distance (Odometer, Trip Odometer)
3	Distance Unit (kilometres (Km), miles (Mile))
4	Speed Unit (kilometres per hour (Km/h), miles per hour (MPH))
5	Operation Mode
6	Watt Meter, Error Code Indicator
7	Pedal Assist Level



LCD Display Operations

Operation	Directions
Turn on bike	Press and hold MODE (2) until power engages
Turn on headlight, taillight, and LCD display backlight	Press and hold MODE (2) and UP (1) until light illuminates
Activate brake light	When bike is on, squeeze brake lever
Increase pedal assist (PAS) level	Press and release up (1)
Decrease pedal assist (PAS) level	Press and release down (3)
Toggle odometer, trip odometer	Press and release MODE (2)
Toggle current speed ("Speed"), average speed, and max speed	Press and hold up (1) until speed display changes
Turn on walk mode	While dismounted, press and continue to hold down (3)
Charge a device using the USB port	Locate USB Port on LCD edge closest to rider and unplug rubber cover. With LCD powered OFF, plug USB charging cable (not included) into USB Port on LCD display and device (not included), turn ON bike by pressing and holding MODE until power engages.



Walk mode should only be used while dismounted from the bike and with both hands on the handlebar. Always keep at least one hand on a brake lever to allow quick cutoff of the motor assistance if necessary and to maintain control of the bike.

Notice: The USB Charging Port charges many, but not all, devices. The USB charge rate from the display will supply power to many phones, but larger phones, which require higher power in order to charge, may not register charging. If the display indicates "USB" it will supplement battery power for the phone, but the state of charge of the phone may still decrease.

Walk Mode

Your RadRhino includes a walk mode that you can use to make pushing it easier when you're dismounted. To activate walk mode, dismount your bike, make sure the power is on, and then press and hold the down arrow or use the twist power assist. Either holding the down arrow or using the twist power assist when dismounted will propel your bike forwards at a quick walking pace, up to 6 km/h (4 mph).



Use walk mode only while dismounted from the bike, when both hands are on the handlebar, and at least one hand is on a brake lever so you can quickly cut power to the motor and maintain control of the bike as necessary.

Brake Light Features and Operations

Your ebike by Rad Power Bikes comes equipped with a taillight/brake light that is integrated into the electrical system. Anytime the bike is powered on, squeezing one or both brake levers on the handlebar will cause the brake light to illuminate.

For increased visibility, the taillight's "solid mode" can be turned on by using the LCD display remote, by pressing and holding the MODE and up arrow buttons when the bike is powered on. When in solid mode, the rear light will illuminate, and when the brake levers are squeezed, the brightness of the rear light will increase as the brake light activates. The taillight is also capable of flashing (in "flash mode"), while powered on.



To activate flash mode, power on the bike and taillight following the steps above, then, while dismounted from the bike, press the rubber flash mode button on the bottom left side of the taillight housing (circled above). When in flash mode, squeezing the brake lever(s) will illuminate a brighter, solid brake light. Flash mode will continue if the headlight is turned off but requires (the above) activation by pressing the flash mode button once the bike has been turned off and back on again.

Start-Up Procedure

After the bike has been properly assembled following the assembly video, all components are secured correctly, and you have read this entire manual, you may turn on the bike and select a power level following the steps outlined below:

1. **Test the battery lock security.** Ensure the key port is aligned with the circle containing an “X,” in the “off, locked” position (2) indicating the battery is off and locked onto the frame mount. If needed, insert the key and align with the “off, locked” icon (2). Remove the key and carefully use both hands to pull up on the battery to test that the lock is secure.
2. **Ensure proper handlebar and seat adjustment** of the bike to the rider. Once the battery has been verified as secure, ensure the seat and handlebars are adjusted properly to the rider. Lowering the seat so the rider can put one or both feet flat on the ground without dismounting from the seat may offer a safer and more comfortable introduction to operating the bike. Ensure the handlebar faceplate bolts and seatpost quick release are fully and properly secured.
3. **Turn the bike on.** Insert the key and turn clockwise to the open circle icon or “on, locked” position (1), as shown (at right). **Remove the key** by pulling directly backwards without twisting so the key barrel remains in the “on, locked” position. Locate the LCD display Remote (near the left handlebar grip). Hold down the centre “mode” button for approximately 2 seconds until power is delivered to the LCD display.



Ensure the key is removed from the battery before mounting or operating the bike. Leaving the key inside of the battery key barrel while mounting, operating the bike, pedalling, dismounting, and/or removing an unlocked battery from the frame can cause damage to the key, battery, and/or injury.

4. **Turn on the headlight and taillight** if needed or desired. Once the LCD display is on, hold down the top (up arrow) and middle (mode) buttons (located on the LCD display Remote) for approximately 2-3 seconds until the lights illuminate.
5. **Select the desired level of pedal assistance (PAS)** between level 0 through 5 using the up and down arrows on the display remote. Level 1 corresponds to the lowest level of pedal assistance, and level 5 corresponds to the highest level of pedal assistance. Level 0 indicates pedal assistance is inactive. Start in PAS level 0 or 1 and adjust from there.
6. **Begin riding carefully.** With the proper safety gear, rider knowledge, and understanding you may now proceed to operate the bike from Rad Power Bikes. On a flat surface, in a low gear (1 or 2), most riders should be able to begin pedalling the bike with pedal assist level 0 or 1. You may also use the Twist Power Assist to accelerate and maintain your desired speed.
7. **The Twist Power Assist** is used by slowly and carefully rotating the Twist Power Assist backwards towards the rider. If the bike is powered on, and the rider is pedalling at an adequate cadence, the Twist Power Assist will act as an adjustable, on-demand pedal assistance boost. When dismounted, the ebike is powered on, and being pushed below 6 km/h (4 mph), the Twist Power Assist will engage walk mode.

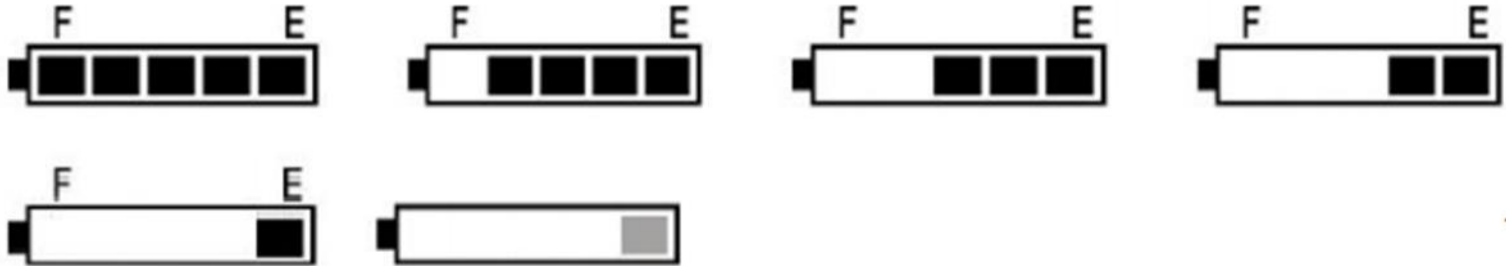


Do not use the Twist Power Assist while dismounted. Avoid accidental application of the Twist Power Assist while dismounted; anytime you are moving the bike while dismounted, ensure the bike is powered off to prevent accidental application of the Twist Power Assist.

NOTICE: Even if you are an experienced bike user, please take the time to read and implement the guidelines described in the owner's manual accompanying the ebike by Rad Power Bikes, and any manuals included with each subcomponent.

Battery Capacity Display

The LCD display on the handlebar of the bike features a battery charge level indicator (like a fuel gauge on a car). This gauge calculates battery life based on the battery power output (instantaneous voltage reading) and can fluctuate while riding if power demand and/or output changes. Once one bar is left on the display, users should charge the battery as soon as possible. At lower states of charge, the bike may limit power output to prevent damage to the battery. When the battery is fully depleted, the last bar will begin to flash, warning the user to charge the battery as soon as possible.



Best Practices for Extending Range and Battery Life

Notice: Follow the best practices listed below to help extend range and battery life.

- Avoid applying full Twist Power Assist when climbing hills and accelerating from a stop.
- Reduce power consumption whenever possible.
- Do not climb hills steeper than 15% in grade.
- Avoid sudden starts and stops.
- Accelerate slowly.

Driving Range

The range of the bike from Rad Power Bikes is the distance the bike will travel on a single full charge of the onboard battery. The range values in this manual are estimates based on Rad Power Bikes expected usage characteristics. Some of the factors which affect range include changes in elevation, speed, payload, acceleration, number of starts and stops, tyre pressure, terrain, and ambient air temperatures.

We suggest that you select a lower assistance level (0 or 1) when you first get the bike from Rad Power Bikes to get to know the bike and travel routes. Once you become familiar with the range requirements of your travel routes and the capabilities of the bike from Rad Power Bikes, you can then adjust your riding characteristics if you desire.

The following table provides general estimates based on various factors. This table is meant to help owners understand the factors that can contribute to decreased range, but Rad Power Bikes makes no claims to the range that individual users might experience in a particular use case.

Expected Range	Operating Condition(s)		
40 km (25 mi)	Hilly Terrain Heavy Payload	High Pedal Assist Level/High Twist Power Assist Use Light Pedalling	Windy
56 km (35 mi)	Flat Terrain Normal Payload	Medium Pedal Assist Level/Moderate Twist Power Assist Use Light Pedalling	Not Windy
88 km (55 mi)	Flat Terrain Normal Payload	Low Pedal Assist Level/Minimal Twist Power Assist Use Moderate to Heavy Pedalling	Not Windy

Carrying Loads

MAXIMUM PAYLOAD FOR RADRHINO

The total maximum weight limit, or payload capacity, of the RadRhino (125 kg or 275 lb) includes the weight of the rider as well as clothing, riding gear, cargo, accessories, passengers, etc. The front and rear racks are optional accessories available for purchase at the website www.radpowerbikes.eu.

Total maximum payload: 125 kg (275 lb)

Optional rear rack payload: 20 kg (45 lb)

Optional front rack payload: 10 kg (22 lb)



The optional RadRhino rear rack is designed for no more than 18 kg (40 lb) of total cargo, regardless of any third-party rear rack accessories that might carry a higher weight rating. Heed this limit, or damage to your bike, property, and/or cargo, and serious injury or death of the rider and/or passenger can occur.



You **MUST** hold onto the bike whenever loading cargo and/or a passenger. The kickstand is not designed to be used for loading cargo. Do not assume the bike is stable and balanced when using the kickstand. Always hold onto the bike when cargo is being loaded, in place, or attached to the ebike.



It is the user's responsibility to ensure a potential passenger on the RadRhino is adequately experienced and healthy enough to ride safely as a passenger. Serious injury or death can occur if passengers are inexperienced or in poor health such that it impacts their ability to ride as passengers safely.



Never leave the bike unattended with a child on the bike. Ensure the child is removed from the bike before you look away or walk away from the bike, otherwise the bike could tip over and cause serious injury to your most precious cargo.

Carrying Cargo

Carrying a cargo load involves additional risks, which require special attention and care. Braking, acceleration, and balancing are all significantly affected by the addition of cargo loaded on the ebike. To safely operate your ebike while carrying cargo, you must become accustomed to the differences in braking, steering, balance, etc. that come with the extra weight. Users should practise riding on a flat and open area with light cargo before attempting to carry heavier loads.

NOTICE: The following list provides important tips for the safe operation of the ebike when used for carrying cargo.

Cargo should be loaded as low as possible to lower the centre of gravity and improve stability, but cargo should not interfere with any moving components or the ground.

Ensure your loads are properly secured and periodically check that nothing loosens, risks interfering with any moving components, or could risk touching or dragging on the ground.

Become proficient at controlling the ebike with the cargo load in a flat and open area before riding on roads or hills. Know your limits and plan routes accordingly.



Hills that are normally easy to climb and descend without cargo can become challenging and dangerous once cargo is loaded onto the bike, as the extra weight affects steering, braking, and balance as well as the amount of power it takes to go uphill.



Do not use the front brake by itself. Apply the rear brake first, then the front brake, and use both brakes for all braking operations. Braking with only the front brake can cause excessive stress on components, damage to the bike and parts, and/or loss of control.



It is always the user's responsibility to ensure that cargo or a passenger loaded on the ebike does not interfere or impact the user's ability to safely operate the ebike. Serious injury or death can occur if cargo or a passenger impacts the user's ability to safely operate the ebike.

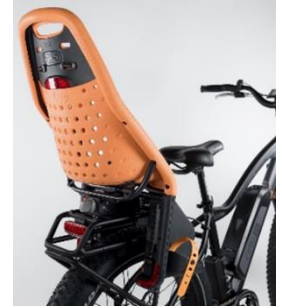
Carrying a Child

The use of certified and approved child seating and equipment, including the RadRhino optional rear rack, are required whenever carrying a child. Check all regulations in the area where you operate the RadRhino to ensure carrying a passenger, a child, or cargo is allowed. Follow the stated weight limits of the bike and accessories; do not overload the RadRhino. Ensure hands and feet are always kept away from wheels when the bike is in motion. A child should not ride as a passenger on the back of the RadRhino unless they are seated in a properly fitted and approved child safety seat.

The RadRhino optional rear rack is equipped with a mounting window (like the one depicted in the photo at right) for the Thule Yepp Maxi Easyfit child carrier. For installation instructions, safety notices, general information, and tips on safe operation of this accessory, visit the manufacturer's website, thule.com, or contact Rad Power Bikes.

NOTICE: The following bulleted list provides important additional tips for the safe operation of the RadRhino when used for carrying a child.

- Increased weight from passengers will increase the time it takes to slow the bike when braking, please plan your stops accordingly. Ensure both front and rear brakes are properly adjusted, maintained, and applied.
- Ensure that the rider and the child passenger are wearing a properly fitted and approved bicycle helmet.
- Passengers should sit directly over or forwards of the rear wheel on the rear rack, and no more than 9 kg (20 lb) should be loaded over the rear 1/3 of the rear rack.



Parking, Storage, and Transport

Please follow these basic parking, storage, and transport tips to ensure the bike is well cared for on and off the road.

- When pushing or carrying the bike manually, turn off the power to avoid accidental acceleration from the motor.
- Turn off the power and any lights off to conserve battery.
- Ensure the battery is locked to the frame in the off position or use the key to remove the battery and bring it with you for security.
- It is recommended to park indoors. If you must park outdoors in rain or wet conditions, you should only leave the bike from Rad Power Bikes outside for a few hours and proceed to park the bike in a dry location afterwards to allow all the systems to dry out. Much like a regular bike, use in wet conditions mandates a more regular maintenance schedule to ensure the bike does not become rusty, corroded, and to ensure all systems are always working safely.
- In public places, the bike from Rad Power Bikes must be parked in accordance with local rules and regulations.
- Locking up the bike is recommended to ensure the bike is secure and the chance of theft is reduced. Rad Power Bikes makes no claims or recommendations on the proper lock hardware or procedures to secure the bike, but we do recommend you take appropriate precautions to keep the bike safe from theft.
- Do not park, store, or transport the bike from Rad Power Bikes on a rack not designed for the bike's size and weight.
- Use a rack compatible with the width of tyres used on the bike. Some racks may not accommodate all tyre widths.
- When storing the bike or carrying the bike on a rack for transport, unlock, remove the key, then remove the battery to reduce the weight of the bike, make lifting and loading easier, and to protect the battery by transporting it in the cab of a vehicle.
- Avoid transporting ebikes from Rad Power Bikes on a vehicle rack during rain, as this may cause water damage to the electrical components. Contact Rad Power Bikes Product Support if you have questions about preventative measures.

Maintenance

Pre-Ride Safety Checklist

Notice: Before every ride, and after every 40-72 km (25-45 mi), we advise following the pre-ride safety checklist.

Safety Check	Basic Steps
1. Brakes	Ensure front and rear brakes work properly. Check brake pads for wear and ensure they are not overworn. Ensure brake pads are correctly positioned in relation to the brake rotors. Ensure brake cables are lubricated, correctly adjusted, and display no obvious signs of wear. Ensure brake levers are lubricated and tightly secured to the handlebar. Test brake levers are firm and that the brake, motor cutoff functions, and the brake lights are functioning properly.
2. Wheels and Tyres	Ensure tyres are inflated to within the recommended limits displayed on the tyre sidewalls and hold air. Ensure tyres have good tread, have no bulges or excessive wear, and are free from any other damage. Ensure rims run true and have no obvious wobbles, dents, or kinks. Ensure all wheel spokes are tight and not broken. Check axle nuts and front wheel quick release to ensure they are tight. Ensure the locking lever on the quick release skewer is correctly tensioned, fully closed, positioned securely.
3. Steering	Ensure handlebar and stem are correctly adjusted, tightened, and allow proper steering. Perform a handlebar twist test (see assembly step 4) to ensure the stem clamp bolt security. Ensure the handlebar is set correctly in relation to the fork and the direction of travel.
4. Chain	Ensure the chain is oiled, clean, and runs smoothly. Extra care is required in wet, salty/otherwise corrosive, or dusty conditions
5. Bearings	Ensure all bearings are lubricated, run freely, and display no excess movement, grinding, or rattling. Check headset, wheel bearings, pedal bearings, and bottom bracket bearings.
6. Cranks and Pedals	Ensure pedals are securely tightened to the cranks. Ensure the cranks are securely tightened and are not bent.

7. Derailleur and Mechanical Cables	Check that the derailleur is adjusted and functioning properly. Ensure shifter and brake levers are attached to the handlebar securely. Ensure all brake and shift cables are properly lubricated.
8. Frame, Fork, and Seat	Check that the frame and fork are not bent or broken. If either frame or fork are bent or broken, they should be replaced. Check that the seat is adjusted properly, and seatpost quick release lever is securely tightened.
9. Motor Drive Assembly and Twist Power Assist	Ensure the hub motor is spinning smoothly and the motor bearings are in good working order. Ensure all power cables running to the hub motor are secured and undamaged. Make sure the hub motor axle bolts are secured and the torque arm and torque washers are in place.
10. Battery	Ensure the battery is charged before use. Ensure there is no damage to battery. Lock the battery to the frame and check to see that it is secured. Charge and store the bike and battery in a dry location, between 10 °C- 25 °C (50 °F- 25 °F). Let bike dry completely before using again.
11. Electrical Cables	Look over connectors to make sure they are fully seated and free from debris or moisture. Check cables and cable housing for obvious signs of damage. Ensure headlight, taillight, and brake light are functioning, adjusted properly, and unobstructed.
12. Accessories	Ensure all reflectors are properly fitted and unobstructed. Ensure all other fittings on the bike are properly secured and functioning. Inspect the helmet(s) and other safety gear for signs of damage. Ensure the rider is wearing helmet and other required riding safety gear. Ensure mounting hardware is properly secured. Ensure the taillight and taillight power wire are properly secured. Ensure the fender mounting hardware is properly secured. Ensure there are no cracks or holes in the fenders.

The cables, spokes, and chain will stretch after an initial break-in period of 80-160 km (50-100 mi), and bolted connections can loosen. Always have a certified, reputable bike mechanic perform a tune-up on the ebike after the initial break-in period of 80-160 km (50-100 mi) (depending on riding conditions such as total weight, riding characteristics, and terrain). Regular inspections and tune-ups are particularly important for ensuring that the bike remains safe and fun to ride.



Basic Bike Care

To ensure safe riding conditions you must properly maintain the ebike from Rad Power Bikes. Follow these basic guidelines and see a certified, reputable bike mechanic at regular intervals to ensure the bike is safe for use and fun to ride. See the [Pre-Ride Safety Checklist](#) and [Recommended Service Intervals](#) sections of this manual for more detailed information.

- Properly maintain batteries by keeping them fully charged when between uses of up to two weeks apart. See [Long-Term Battery Storage](#) section of manual for information on storing the battery for longer than two weeks between rides.
- Never immerse or submerge the bike or any components in water or liquid as the electrical system may be damaged.
- Periodically check wiring and connectors to ensure there is no damage and the connectors are secure.
- To clean, wipe the frame with a damp cloth. If needed, apply a mild non-corrosive detergent mixture to the damp cloth and wipe the frame. Dry by wiping with a clean, dry cloth.
- Store under shelter; avoid leaving the bike in the rain or exposed to corrosive materials. If exposed to rain, dry the bike afterwards and apply anti-rust treatment to chain and other unpainted steel surfaces.
- Riding on the beach or in coastal areas exposes the bike to salt, which is very corrosive. Wipe down the bike frequently and wipe or spray all unpainted parts with anti-rust treatment. Damage from corrosion is not covered under warranty so special care should be given to extend the life of the bike when used in coastal areas or areas with salty air or water.
- If the hub and bottom bracket bearings have been submerged in water or liquid, they should be taken out and re-greased. This will prevent accelerated bearing deterioration.
- If the paint has become scratched or chipped in the metal, use touch up paint to prevent rust. Clear nail polish can also be used as a preventative measure.
- Regularly clean and lubricate all moving parts, tighten components, and adjust as required.
- All pre-attached and optional component hardware should be inspected regularly to ensure proper torque spec, secure attachment, and that they are in good working condition.



If you do not have the experience, skill, and tools to complete maintenance and adjustment of the bike, Rad Power Bikes strongly recommends having a certified, reputable bike mechanic maintain, tune, and ensure the bike is safe to ride.

Recommended Service Intervals

Regular inspection and maintenance are key to ensure the ebike by Rad Power Bikes functions as intended, and to reduce wear and tear on the ebike systems. Recommended service intervals are meant to be used as guidelines. Real world wear and tear, and the need for service, will vary with conditions of use. We generally recommend inspections, service, and necessary replacements be performed at the time or mileage interval that comes first in the following table.

Interval	Inspect	Service	Replace
Weekly, 160-321 km (100- 200 mi)	<ul style="list-style-type: none"> - Check hardware for proper torque: See Recommended Torque Values chart. - Check drivetrain for proper alignment and function (including the chain, freewheel, chainring, and derailleur). - Check wheel trueness and for quiet wheel operation (without spoke noise). - Check condition of frame for any damage. 	<ul style="list-style-type: none"> - Clean frame by wiping frame down with damp cloth. - Use barrel adjuster(s) to tension derailleur/brake cables if needed. 	<ul style="list-style-type: none"> - Replace any components confirmed by Rad Power Bikes Product Support or a certified, reputable bike mechanic to be damaged beyond repair or broken.
Monthly, 402-1207 km (250- 750 mi)	<ul style="list-style-type: none"> - Check brake pad alignment, brake cable tension. - Check bike is shifting properly, proper derailleur cable tension. - Check chain stretch. - Check brake and shifter cables for corrosion or fraying. - Check spoke tension. - Check accessory mounting (rack mounting bolts, fender hardware, and alignment). 	<ul style="list-style-type: none"> - Clean and lubricate drivetrain. - Check crankset and pedal torque. - Clean brake and shift cables. - True and tension wheels if any loose spokes are discovered. 	<ul style="list-style-type: none"> - Replace brake and shift cables if necessary. - Replace brake pads if necessary.
Every 6 Months, 1207-2011 km (750- 1250 mi)	<ul style="list-style-type: none"> - Inspect drivetrain (chain, chainring, freewheel, and derailleur). - Inspect all cables and housings. 	<ul style="list-style-type: none"> - Standard tune-up by certified, reputable bike mechanic is recommended. - Grease bottom bracket. 	<ul style="list-style-type: none"> - Replace brake pads. - Replace tyres if necessary. - Replace cables and housings if necessary.

Troubleshooting

Basic Troubleshooting

Symptoms	Possible Causes	Most Common Solutions
The bike does not work	<ol style="list-style-type: none"> 1. Insufficient battery power 2. Faulty connections 3. Battery not fully seated in tray 4. Improper turn on sequence 5. Brakes are applied 6. Blown 40a discharge fuse 	<ol style="list-style-type: none"> 1. Charge the battery 2. Clean and repair connectors 3. Install battery correctly 4. Turn on bike with proper sequence 5. Disengage brakes 6. Replace 40a discharge fuse
Irregular acceleration and/or reduced top speed	<ol style="list-style-type: none"> 1. Insufficient battery power 2. Loose or damaged twist power assist 3. Misaligned or damaged magnet ring 	<ol style="list-style-type: none"> 1. Charge or replace battery 2. Replace twist power assist 3. Align or replace magnet ring
The motor does not respond when the bike is powered on	<ol style="list-style-type: none"> 1. Loose wiring 2. Loose or damaged twist power assist 3. Loose or damaged motor plug wire 4. Damaged motor 	<ol style="list-style-type: none"> 1. Repair and or reconnect 2. Tighten or replace 3. Secure or replace 4. Repair or replace
Reduced range	<ol style="list-style-type: none"> 1. Low tyre pressure 2. Low or faulty battery 3. Riding up steep hills, headwind, and/or heavy payload 4. Battery discharged for long period of time without regular charges, aged, damaged, or unbalanced 5. Brakes rubbing 	<ol style="list-style-type: none"> 1. Adjust tyre pressure 2. Check connections or charge battery 3. Assist with pedals or adjust route 4. Balance the battery; contact Tech Support if range decline persists 5. Adjust the brakes
The battery will not charge	<ol style="list-style-type: none"> 1. Charger not well connected 2. Charger damaged 3. Battery damaged 4. Wiring damaged 5. Blown charge fuse 	<ol style="list-style-type: none"> 1. Adjust the connections 2. Replace 3. Replace 4. Repair or replace 5. Replace charge fuse
Wheel or motor makes strange noises	<ol style="list-style-type: none"> 1. Loose or damaged wheel spokes or rim 2. Loose or damaged motor wiring 	<ol style="list-style-type: none"> 1. Tighten, repair, or replace 2. Reconnect or replace motor.

Error Detection

The bike by Rad Power Bikes is equipped with an error detection system integrated into the display and controller. In the case of an electronic control system fault, an error code should display. The following error codes are the most common and can aid in troubleshooting. If the bike has an error code displayed at any time, it is recommended that you cease operation and contact Rad Power Bikes immediately. Additional information on error codes can be found at www.radpowerbikes.eu/pages/owner-tools.

Error Code	Definition
21	Abnormal Current
22	Twist Power Assist Fault
23	Motor Phase Fault
24	Motor Hall Fault
25	Brake Switch Fault or Brake Applied While Turning On
30	Communication Fault

Additional Information on Wear

Components of the RadRhino are subject to higher wear when compared to bikes without power assistance. This is because the RadRhino can travel at higher average speeds than regular bicycles and has a greater weight. Higher wear is not a defect in the product and is not subject to warranty. Typical components affected are the tyres, brake pads and rotors, suspension forks, spokes, wheels, and the battery.



When the useful life of a component is surpassed it can cause unexpected loss of function. This can result in serious injuries or even death. Therefore, pay attention to wear characteristics such as cracks, scratches, or changes in the colour or operation of components which could indicate useful life has been exceeded. Worn components should be replaced immediately. If you are unfamiliar with regular maintenance, a certified, reputable bike mechanic should be consulted.

Tyre Inflation and Replacement

The ebike employs 26" x 4" (66.04 x 10.16 cm) rubber tyres with inner tubes. The tyres are designed for durability and safety for regular cycling activities and the tyres need to be checked before each use for proper inflation and condition. Proper inflation, care, and timely replacement will help to ensure that the bike's operational characteristics will be maintained, and unsafe conditions avoided.

Rad Power Bikes recommends 20 psi/1.4 bar for the stock tyres on the RadRhino. Always stay within the manufacturer's recommended air pressure range on the tyre sidewall.



It is critically important that proper air pressure is always maintained in pneumatic tyres. Do not underinflate or overinflate the tyres. Low pressure may result in loss of control, and overinflated tyres may burst. Failure to always maintain the air pressure rating indicated on pneumatic tyres may result in tyre and/or wheel failure.



Inflate the tyres from a regulated air source with an available pressure gauge. Inflating the tyres from an unregulated air source could overinflate them, resulting in a burst tyre.

Even tyres equipped with built-in flat-preventative tyre liners, like those that come with 2019 bikes by Rad Power Bikes, can and do get flats from punctures, pinches, impact, etc. When tyre wear becomes evident or a flat tyre is discovered, tyres and/or tubes must be replaced before operating the bike or injury to the operator, damage to the bike and/or property, serious injury and/or death could occur.



When changing a tyre or tube, ensure that all air pressure has been removed from the inner tube prior to removing tyre from the rim. Failure to remove all air pressure from the inner tube could result in serious injury.



Using aftermarket tyres or inner tubes, not provided by Rad Power Bikes may void the warranty, create an unsafe riding condition, or damage the bike by Rad Power Bikes. If required by law, and for adequate visibility, ensure replacement aftermarket tyres have enough reflective sidewall striping.

For more information on tyre or tube replacement procedures, or questions about tyre inflation, visit

www.radpowerbikes.eu/pages/owner-tools or contact Rad Power Bikes Product Support:

Email: eu-support@radpowerbikes.com Call: +31-85 7470430

Warnings and Safety

General Operating Rules

Notice: It is recommended that users pay special attention to all the general operating rules below before operating their bike from Rad Power Bikes.

- When riding, obey the same road laws as all other road vehicles as applicable by law in your area.
- For additional information regarding traffic/vehicles laws, contact the road traffic authority in your area.
- Ride predictably, in a straight line, and with the flow of traffic. Never ride against traffic.
- Use correct hand signals to indicate turning.
- Ride defensively; to other road users you may be hard to see.
- Concentrate on the path ahead. Avoid potholes, gravel, wet or oily roads, wet leaves, curbs, train tracks, speed bumps, drain gates, thorns, broken glass, and other obstacles, hazards, and puncture flat risks.
- Cross train tracks at a 90-degree angle or walk the bike across.
- Expect the unexpected such as opening car doors or cars backing out of driveways.
- Be careful at intersections and when preparing to pass other vehicles or other cyclists.
- Familiarize yourself with all the features and operations of the bike by Rad Power Bikes. Practise and become proficient at shifting gears, applying the brakes, using the power assist system, and using the Twist Power Assist in a controlled setting before riding in riskier conditions.
- Wear proper riding clothes including closed-toe shoes. If you are wearing loose pants, secure the bottom using leg clips or elastic bands to prevent them from being caught in the chain or gears. Do not use items that may restrict your hearing.
- Check your local rules and regulations before carrying cargo.
- When braking, apply the rear brake first, then the front brake. If brakes are not correctly applied, they may lock up, you may lose control, and you could fall.
- Maintain a comfortable stopping distance from all other objects, riders, and vehicles. Safe braking distances are based on road surface and light conditions among other variables.



The following safety notes provide additional information on the safe operation of the bike from Rad Power Bikes and should be closely reviewed. Failure to review these notes can lead to serious injury or death.

- All users must read and understand this manual before their first use of the bike from Rad Power Bikes. Additional manuals for components used on the bike may also be provided and should be read before use in addition to this manual.
- Ensure that you comprehend all instructions and safety notes/warnings.
- Ensure the bike fits you properly before your first use. You may lose control or fall if the bike is too big or too small.
- Always wear an approved bicycle helmet whenever using the bike and ensure all helmet manufacturer instructions are used for fit and care of your helmet. Failure to wear a helmet when riding may result in serious injury or death. See [Helmets](#) section of this manual for more information.
- Ensure correct setup, tightening, and torqueing to recommended torque values is performed on the bike before first using it and check the setup, tightening, and condition of components and hardware regularly.
- It is your responsibility to familiarize yourself with the laws and requirements of operating this product in the area(s) where you ride.
- Ensure the handlebar grips are undamaged and properly installed. Loose or damaged grips can cause you to lose control and fall.
- Do not use this product with standard bike trailers, stands, vehicle racks, or accessories that Rad Power Bikes has not tested for safety and compatibility and has verified as safe and compatible with the bike. Contact Rad Power Bikes to check if your equipment will work with the bike.
- Off-road riding requires close attention, specific skills, and presents variable conditions and hazards which accompany the conditions. Wear appropriate safety gear and do not ride alone in remote areas. Check local rules and regulations if off-road ebike riding is allowed.

- Engaging in extreme riding is extremely dangerous and should be avoided. Although many articles/advertisements/catalogues depict extreme riding, this is not recommended nor permitted, and you can be seriously injured or killed if you perform extreme riding.
- Bikes and bike parts have strength and integrity limitations and extreme riding should not be performed as it can damage bike components and/or cause or lead to dangerous riding situations in which you may be seriously injured or killed.
- Failure to perform and confirm proper installation, compatibility, proper operation, or maintenance of any component or accessory can result in serious injury or death.
- After any incident, you must consider the bike unsafe to ride until you consult with a certified, reputable bike mechanic for a comprehensive inspection of all components, functions, and operations of the bike.
- Failure to properly charge, store, or use the battery will void the warranty and may cause a hazardous situation.
- You should check the operation of the brake motor cutoff switches before each ride. The brake system is equipped with an inhibitor which cuts off power to the electric motor whenever the brakes are engaged. Check proper operation of brake motor cutoff switches before riding.
- Extreme care should be taken when using the pedal assistance sensor and Twist Power Assist on this product. Ensure you understand and are prepared for the power assistance to engage as soon as pedalling is underway.
- Users must understand the operation of the Twist Power Assist and pedal assistance sensors before using the bike and take ample care in their usage in respect to travelling at speeds appropriate for the usage area, riding conditions, and user experience level. Always use the lowest assist level until you are comfortable with the bike and feel confident in controlling the power.
- Any aftermarket changes to the bike from Rad Power Bikes not expressly approved by Rad Power Bikes could void the warranty and create an unsafe riding situation.
- Because electric bikes are heavier and faster than normal bikes, they require extra caution and care while riding.
- Take extra care while riding in wet conditions including decreasing speed and increasing braking distances. Feet or hands can slip in wet conditions and lead to serious injury or death.
- Do not remove any reflectors or the bell.

General Warnings



Like any sport, bicycling involves risk of damage, injury, and death. By choosing to ride a bike, you assume the responsibility for that risk, so you need to know and practise the rules of safe and responsible riding and the proper use and maintenance of this bike. Proper use and maintenance of the bike reduces the risk of damage, injury, and death.



Biking and controlled substances do not mix. Never operate a bike while under the influence of alcohol, drugs, or any substance or condition that could impair motor functions, judgement, or the ability to safely operate a bike or another vehicle.



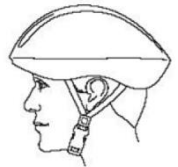
The ebike is designed for use by persons 18 years old and older. Riders must have the physical condition, reaction time, and mental capability to ride safely and manage traffic, road conditions, sudden situations, and respect the laws governing electric bike use where they ride, regardless of age. If you have an impairment or disability such as a visual impairment, hearing impairment, physical impairment, cognitive/language impairment, a seizure disorder, or any other physical condition that could impact your ability to safely operate a vehicle, consult your physician before riding any bike.



If you do not have the experience, skill, and tools to complete maintenance and adjustment of the bike, Rad Power Bikes strongly recommends having a certified, reputable bike mechanic maintain, tune, and ensure the bike is safe to ride.

Helmets

It is strongly advised that a rider and child passenger always wear a properly fitting, approved bicycle safety helmet when riding. Once safely dismounted from the bike, a helmet should be removed. Bicycle helmets should only and always be used for bicycle riding.



We recommend riders wear a properly fitted, approved bicycle helmet that covers the forehead when riding a bike.

Wet Weather



It is recommended to not ride in wet weather if avoidable. Ride in wet weather only if necessary.

This electric bike is not meant for use in puddles, heavy rain, or streams. Never immerse or submerge this product in water or liquid as the electrical system may be damaged.

- In wet weather you need to take extra care when operating this bike.
- Decrease riding speed to help you control the bike in slippery conditions.
- Brake earlier since it will take longer to slow than when operated in dry conditions.
- Take care to be more visible to others on the road. Wear reflective clothing and use approved safety lights.
- Road hazards are more difficult to see when wet; proceed with caution.

Night Riding



It is recommended to not ride at night. Ride at night only if necessary.

- Wear reflective and light-coloured clothing.
- Slow down and use familiar roads with street lighting, if possible.
- Ensure tyre wall, pedal, and other reflectors are installed and unobstructed.
- Use a properly functioning lighting set comprised of a white front lamp and red rear lamp.

A Note for Parents and Guardians

As a parent or guardian, you are responsible for the activities and safety of your child. The RadCity is not designed for use by children under the age of 18. If you are carrying a passenger in a child safety seat, they must also be wearing a properly fitted and approved helmet. Additional safety information regarding helmets can be found in the [Helmets](#) section of this manual. See [Carrying A Child](#) section of this manual for more information on keeping a child safe when being transported in an approved child safety seat attached to the rear rack of the ebike.

Limited warranty and other terms

Your bike's warranty and other binding legal terms (e.g., terms of purchase, etc.) are subject to change at any time. To view your terms of purchase, go to www.radpowerbikes.eu/terms. To view the current warranty, please go to www.radpowerbikes.eu/warranty.

RAD POWER BIKES LIMITED WARRANTY TERMS

This Limited Warranty is in addition to your statutory rights.

All Rad Power Bikes ("RPB") E-Bikes (the "E-Bike") purchased in Europe, and their individual Covered Components (as defined herein), are protected against all manufacturing defects in material or workmanship with regard to the Covered Components for two years after the date of a qualifying purchase (the "Warranty Period"). This Limited Warranty is only applicable to E-Bike purchases in the UK and EU (purchases in the United States or Canada shall be subject to the applicable warranty terms offered by RPB in those jurisdictions) and in accordance with the following terms:

Only the original owner of the E-Bike is covered by this Limited Warranty. The Warranty Period begins upon your receipt of the E-Bike and shall end immediately upon the earlier of the end of the Warranty Period or any sale or transfer of the E-Bike to another person, and under no circumstances shall the Warranty apply to any subsequent owner or other transferee of the E-Bike.

The Limited Warranty is expressly limited to the replacement of any of the following components that come standard on your ebike model, if those components are found to be defective: lithium ion battery (the "Battery"), frame, forks, stem, handlebar, headset, seat post, saddle, brakes, lights, bottom bracket, crank set, pedals, rims, wheel hub, freewheel, cassette, derailleur, shifter, chain tensioner, motor, throttle, twist power assist, controller, wiring harness, LCD display, LED display, kickstand, reflectors and hardware (each a "Covered Component").

This Limited Warranty Does Not Cover

- Normal wear and tear of any Covered Component.

- Consumables or normal wear and tear parts (such as tyres, tubes, brake pads, cables and housing, grips, chain, spokes), unless defective when received.
- Any damage or defects to Covered Components resulting from failure to follow instructions in the E-Bike owner's manual, acts of God, accident, misuse, neglect, abuse, commercial use, alterations, modification, improper assembly, installation of parts or accessories not originally intended or compatible with the E-Bike as sold, operator error, water damage, extreme riding, stunt riding, or improper follow-up maintenance.
- For the avoidance of doubt, RPB will not be liable and/or responsible for any damage, failure or loss caused by any unauthorized service or use of unauthorized parts.
- The Battery is not warranted from damage resulting from power surges, use of an improper charger, improper maintenance or other such misuse, normal wear or water damage.
- Damage that occurs during shipping if the owner sets up their own shipping option or if the bike is shipped using a freight forwarder or similar service.
- Any products sold by RPB that is not an E-Bike.
- Shipping damage if such damage is not reported to RPB within 30 days from receipt of product.

DETERMINING WHETHER DAMAGE OR DEFECT TO AN E-BIKE OR COVERED COMPONENT IS PROTECTED BY THIS LIMITED WARRANTY SHALL BE IN SOLE DISCRETION OF RPB.

CLAIMS PROCESS

RPB WILL NOT REPLACE ANY COVERED COMPONENT UNDER THIS LIMITED WARRANTY WITHOUT FIRST SEEING PHOTOS OR VIDEO OF THE DAMAGED COVERED COMPONENT.

Before making a warranty claim, we suggest that you contact our Product Support team at eu-support@radpowerbikes.com as there may be a simple fix for your problem.

Subject to your rights to cancel set out in the Consumer Purchase Terms and Conditions, in order to exercise your right to receive a replacement for a Covered Component under this Limited Warranty, you must:

- Contact the RPB Product Support team by email at eu-support@radpowerbikes.com or by phone at +31-85 7470430. The Product Support team will initially work with you on the problem with your E-Bike to identify potential simple fixes.
- In the event that the Product Support team determines that a Covered Component must be replaced, they will provide you with a set of instructions for returning the defective Covered Component and receiving the replacement.
- After you receive the replacement Covered Component, the Product Support team will also provide assistance in determining how to replace or install the new Covered Component into your E-Bike.
- You will be responsible for shipping costs associated with returning a Covered Component, unless RPB agrees in writing to pay for such shipping costs. Replacement Covered Components under this Limited Warranty shall only be shipped to the address of the original purchaser.

All claims to this warranty must be made through Rad Power Bikes within 2 years of initial purchase. Warranty claims may be submitted to eu-support@radpowerbikes.com.

Warranty parts will only be shipped within the 26 countries we are currently shipping to. If you had your E-bike delivered to one country and then shipped to another country, parts will only be sent to the country in which the bike was originally delivered.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER STATUTORY RIGHTS IN RELATION TO THE PRODUCTS AND THOSE RIGHTS ARE NOT AFFECTED BY THIS LIMITED WARRANTY.

Links to Assembly Video and Online Resources

Assembly Video

Please visit the “Help Center” section of the Rad Power Bikes website (www.radpowerbikes.eu/pages/owner-tools) or the Rad Power Bikes YouTube Channel to view the official, current RadRhino Assembly Video.

Online Resources

For more information on best practices, please visit the Rad Power Bikes website (www.radpowerbikes.eu) or contact Rad Power Bikes Product Support with any questions.

If you have questions, please:

Visit our website (www.radpowerbikes.eu),

Help Center (www.radpowerbikes.eu/pages/owner-tools), or

Contact us directly by email to eu-support@radpowerbikes.com, or by phone to +31-85 7470430.

Ride RAD!