Raddy eTrail Terra E-Bike User Manual



Thank you for purchasing e-bike from Raddy. We are proud of offering the best quality of product and service for you. Please read this manual carefully before assembly.

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Before You Start Your Journey with eTrail Terra...

This manual includes detailed information of the product, its equipment, and on operation, maintenance, and other helpful tips for owners. Read it carefully and familiarize yourself with the electric bike before using it to ensure safe use and prevent accidents. All information in this manual should be carefully reviewed and if you have any questions, you should contact Raddy immediately.

The notes, warnings, and cautions contained within the manual and marked by the triangular Caution Symbol at the right of this page should be given particular care. Users should also pay special attention to information marked in this manual beginning with NOTICE.

Keep this manual, along with any other documents that are included with your bike, for future reference, however all content in this manual is subject to change or withdrawal without notice. Visit our website to view and download the latest version. Raddy makes every effort to ensure the accuracy of its documentation and assumes no responsibility or liability if any errors or inaccuracies appear within.

Because it is impossible to anticipate every situation or condition that 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 that cannot be predicted or avoided and are the sole responsibility of the rider.

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Notice

- Review all included notices and documentation. Improper assembly, maintenance, or use of the bicycle may result in component or performance failure, loss of control, serious injury or death. Even if you are an experienced bicycle rider, you must read and understand the entire manual and any documentation provided for subcomponents or accessories before riding. If you are not sure whether you have the experience, skills, and tools to correctly perform all the assembly steps in the manual, please consult a local, certified bicycle mechanic.
- Ensure proper personal safety equipment is worn and children are supervised by an adult when operating.

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Guard against Rust, Water Damage, and Corrosion

Like any outdoor vehicles, your e-bike needs some protection to ensure it isn't damaged by the elements. Follow these steps for a long, healthy life for your e-bike:

- Store both the bike and the battery 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.
- In case of storage of more than one month, such as winter storage, please charge the battery regularly (at least once a month) and turn off the circuit breaker. Please do not leave the battery outside under freezing temperature.
- To clean your e-bike, turn the bike and battery off and use soft cloths or sponges to clean the surfaces. 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. Do not power wash your bike. Wipe down your bike frequently and wipe or spray all unpainted mechanical parts with anti-rust treatment.
- If painted metal parts are accidentally damaged, 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 cause the electrical system to be damaged.
- Avoid riding on the beach, in coastal areas with high-salinity fog, or on surfaces treated with salt or de-icing compounds. 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.

Regular Inspection:

For every 1864 miles you travel or every 6 months, a full inspection/ tune-up is recommended based on the condition of the bike.

🕛 Warning

Damage to your e-bike's electrical system may result from any manner, including water intrusion, which 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 Raddy Product Support.

🔊 How the Electrical System Works

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

How the Pedal Assist System Works

The user 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 user revolves the pedals and signals the electric motor to provide the level of pedal assistance (PAS 0-5) that has been selected.

How the Throttle Works

The throttle is located on the right side of the handlebar. The rider can use it with a twist of the throttle grip to propel the bike forward without pedaling.

To engage the throttle while riding, slowly and carefully rotate it toward yourself. The more you twist, the more powerfully the throttle will propel the bike forward. Once you release the throttle or apply the brakes, the throttle will no longer propel the bike forward. Always keep one hand on the brake lever and be prepared to squeeze the lever to disengage the throttle if needed, or turn off the bike to prevent accidentally engaging the throttle.

Raddy eTrail Terra is equipped with an on/off switch for the throttle. These switches can be set to "off" even while the bike electrical system is on in order to prevent use of the throttle. You should not use your throttle if regulations where you ride prohibit throttle use on e-bikes. It is your responsibility to research and follow local e-bike regulations and all other traffic law.

\land Do Not Touch the Brake Rotor

Touch the brake rotor, which has sharp edges and can get very hot while riding, can cause serious injury, scratches, 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 reduce 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.

Additional Precautions Regarding Electrical Components

CAUTION: To reduce the risk of fire, connect only to a circuit provided with 10 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70.

WARNING: Using a damaged battery or charger can create additional bike damage or a fire hazard. Stop using your battery and charger and contact Raddy 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 are frayed, have 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.
- (4) Your charger becomes too hot to touch (Heat it's normal in proper 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 Raddy if you have any questions or to purchase a compatible replacement battery or charger.

Min Related Regulations of Riding an Electric Bike

According to US Consumer Product Safety Commission (CPSC), a qualified e-bike (defined as Power Assist Bicycle) must meet following requirements:

- The e-bike must have pedals that can be stepped on
- Upper wattage limit for the motor is 750W
- Maximum speed of an e-bike is 32km/h
- The whole vehicle does not exceed 50 kg

Other requirements include a permanently affixed compliance label from the manufacturer stating that the vehicle is a power-assisted bicycle under statutory requirements in force at the time of manufacture. Currently, there is no license, no insurance and no vehicle registration required to operate a qualified e-bike. e-bike riders share the same rights and responsibilities as other road users.

However, states have the power to restrict the use of e-bikes. Most states require the rider to wear a helmet. Some states have special requirements with regard to the age limit to operate an e-bike, the type of helmet required, even the number of wheels and wheel size. Typically, e-bikes are generally treated the same as regular bicycles. According to the the US Consumer Product Safety Commission (CPSC), the age limit to operate an e-bike is 16 years old and above; the maximum weight of the bike is 50 kilograms; the bike must have a brake distance of less than 9 meters; Any modifications made to the bike's motor to create speeds greater than 32km/h are prohibited.

The use of non-original components or spare parts can jeopardize the safety of your e-bike, void your warranty and, in some cases, cause your e-bike to not conform with laws pertaining to your bike. As the rules and regulations are subject to changes in different states. Please check your municipal bylaw and see where you stand.

Specifications

Model Name	eTrail Terra
Max. Load Capacity	130kg (286lbs)
Max Speed	32km/h (20mph)
Motor	750W
Battery	48V, 10.4Ah
Range Average Per Charge	Electric Drive Status: 50km (30 miles)
Wheel Size	26" x 4" Front / Rear Fat Tires
Tire Pressure	Inflation to 5-30 PSI
Charger	48V, 2A
Charging Time	Full: 4-5 hours
Water Resistance Rating	Display, Wires, Connecting Meters, Battery, Motors, Wires of Controllers: IP65 Others: IP45
Weight	34.8kg(76.7lbs)

*The eTrail Terra has integrated a dual battery system, and the battery can be purchased on iraddy.com. If the capacity of the optional battery is 48V, 10.4mAh, the range average per charge can be doubled.

* Range Per Charge is measured under the conditions that power is sufficient, with a 165lb load, at 86°F(30°C), 70% humidity, on a level road, in pure electric riding mode. Actual results may vary based on differences in temperature, load, wind speed, road conditions and other factors.

Assembly Guide



What's in the Box

Box 1		
1* Raddy eTrail Terra	1* Multi-function screwdriver	1* Front light
1* Charger	1* Inflator	1* Front tire
1* User manual	2* Pedals	1* Fender

Box 2		
2* Key	1* Battery	

Assembly Steps

Step 1: Inspect the bike and components for any damage. Contact Raddy if anything is damaged or missing.

Step 2: Remove packaging and fold the bike using the latch to secure a locking position.



1 Pull on the frame clip

Step 3: Install and fix the handlebars with screws.



2 Lock the clip in place



① Put the handlebar at the middle of the post, twist screws but not tighten. Adjust to a comfortable angle.



2 Secure with screws

Step 4: Install the front tire.



① Put the fender on top of the tire (Note: The tire has left and right sides and cannot be misplaced. Please place the side of the tire with the brake disc on the side of the frame with the brake pads. And when installing, insert the brake disc into the brake pad to form a complete brake system.)



(2) Insert the frame into the axle

③ Insert the fixing pieces of both sides of the tire into the holes on the frame. (*Note: The fixing pieces are to prevent the tire from falling when it is lifted.*)



- $(\underline{4})$ Insert the bracket on the wheel axle
- 5 Secure with two screws

(6) Raise the fender to the highest position, put the light ahead of the fender, align the hole then fix it with a screw.

Step 5: Install the battery.



1 Open the clip

② Place the battery into the charging groove

3 Lock the battery with the key

Step 6: Install the bicycle pedals.





 $(\ensuremath{\mathbbm I})$ There is a RIGHT pedal marked R and a LEFT pedal marked L. Make sure the left and right pedals are installed in the correct position.

- 2 Hold the crank arm vertically and push the pedal towards the bike.
- ③ Screw in the right pedal into the right crank arm in a clockwise manner, by hand at first.
- ④ Use the pedal wrench and tighten the pedal all the way in.
- (5) The installation of the left pedal is the same as the right one, but screw in anti-clockwise way.
- (6) Make sure the threads of each pedal are fully into the crank arm.

Step 7: Switch to mode ${\mathbb I}$.

Charging Instructions

You can either charge it directly or take the battery out to charge directly.



1 Open the cover



2 Plug in the charger

When the charger's indicator turns red, it means the ebike is charging. When the indicator remains green, it means the ebike is not charging.

Gear Shifter Instructions



- Pushing the upper lever to raise the gear (smaller numbers).

- Pushing the button to lower the gear (bigger numbers)

Throttle Instructions



Twist the throttle towards yourself to start the bike & accelerate

Lights & Horn Instructions



Pushing light button to turn on the headlight.

Pushing the horn button to initiate the passing/warning horn.

Display Instructions



Guidelines for Common Functions

- 1 Speed: Shows the current speed that you are traveling.
- (2) Total Mileage: Shows the total mileage your electric bike has travelled.
- ③ **Speed Grade:** From level 1 to 5, the larger the number, the higher the speed limit, with level 5 speed limit being 20mph.
- Battery level: Fully charged 5 squares, 80% left 4 squares, 60% left 3 squares, 40% left 2 squares, 20% left 1 square.
- (5) Adjust Speed Grade: Press the "+" button to raise the speed grade & the "-" button to lower the speed grade.
- (6) **USB Port:** Use it to charge your smartphone.

Guidelines for More Functions





(2) The degree of power:



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3 Multi-function area:

TRIP ODO TVOLEE TVOLEE

VOL: Digital Voltage RM: Rotating Speed of Motor ODO: Odometer (total mileage) TRIP: Single Mileage Time: Working Time

④ Speed mark:

CUR: Current Speed MAX: Maximum Speed AVG: Average Speed

5 Failure mark: 🔨 🕕 👘

From left to right: Controller Failure - Brake Lever Power Off - Handlebar Failure - Motor Failure - Under-voltage Protection

(6) Assist state (Mode 0-5): (1); Cruise mark:

Introduction to the Use of Buttons

- 1 Press the "+" button to raise the speed grade & the "-" button to lower the speed grade;
- 2 While riding, press "ON/OFF" to switch to multi-function area to display data;
- ③ On still status, press and hold "-" to active 6 km/h cruise mode; on riding status, press and hold "-" to enter real-time cruise mode (if it is currently in the cruise mode, the cruise will be released);
- ④ Press and hold "ON/OFF" for 3 seconds to turn the headlight on;
- (5) While the display is currently on working status, press and hold "ON/OFF" for 3 seconds will turn the headlight on, continue to press "ON/OFF" for 3 seconds, it will turn off the display;
- (6) Press and hold "+" and "-" to enter the parameter setting interface, the parameters that can be set include: backlight brightness, mileage unit, voltage level, sleep time, assist gear, wheel diameter, number of magnets, speed limit, zero start and non-zero start setting, drive mode, power-assisted sensitivity, power-assisted start intensity, power-assisted magnetic steel plate type, controller current limit value, ODO reset setting, etc.

In the setting interface, press "ON/OFF" to switch the menu above and press "+" or "-" to adjust the parameters of the current menu. After the parameter is modified, it will flash. After selecting the set value, press "ON/OFF" to save the current setting and move forward to the next menu; press and hold "+" and "-" to exit settings. If no actions for 10 seconds, the menu will be exited as well.

Menu List:

- P01: Backlight brightness, level 1 is the darkest, level 3 is the brightest;
- P02: Mileage unit, 0: KM; 1: MILE;
- P03: Voltage level: 24V, 36V, 48V, default 36V;
- P04: Sleep time: 0, no sleep; other numbers are sleep time, range: 1-60 (minute/minutes);

P05: Assist gear:

0 refers to 3 gear modes: Mode 1 -- 2V, Mode 2 -- 3V, Mode 3 -- 4V;

1 refers to 5 gear modes: Mode 1 -- 2V, Mode 2 -- 2.5V, Mode 3 -- 3V, Mode 4 -- 3.5V, Mode 5 -- 4V:

Max speed of each mode:

Mode 1 -- 10 Km/h, Mode 2 -- 15 Km/h, Mode 3 -- 20 Km/h, Mode 4 -- 27 Km/h, Mode 5 -- 32 Km/h;

- P06: Wheel diameter: unit inch; accuracy 0.1;
- P07: Number of magnets: range: 1-100;
- P08: Speed limit: range: 0-50 km/h (50 means unlimited speed).
 - 1.Non-communication status (display control): When the current speed exceeds the set speed, the PWM output will be turned off; when the current speed drops below the set speed, the PWM output is automatically turned on. The driving speed is the current speed \pm 1km/h; (Speed limit only works for PAS)
 - 2. Communication status (controller control): the drive speed is maintained at the set value, error: ± 1 km/h; (Speed limit work both for PAS and handle)

Note: The value here is based on kilometers. When the unit setting is changed from kilometers to miles, the speed value on the display will automatically be converted to the correct mile value, but the speed limit data set in this menu under the mile interface will not change. It is inconsistent with the actual speed limit value displayed in miles.

P09: Zero start and non-zero start setting, 0: zero start; 1: non-zero start;

- P10: Drive mode setting
 - 0: Power-assisted drive (the amount of output power depends on the power-assisted gear adjustment, turning handle is invalid)
 - 1: Electric drive (drive through the handle, the power-assisted gear is invalid).
 - 2: Power-assisted drive and electric drive coexist at the same time (invalid in the zero-start state of electric drive)
- P11: Power-assisted sensitivity setting: range: 1-24;
- P12: Power-assisted start intensity: range: 0-5;
- P13: Power-assisted magnetic steel plate type: 5, 8, and 12 magnets for three types of magnets
- **P14:** Controller current limit value: default setting is 12A. Range: 1-20A (Three gear current limit values: 1st: 4A; 2nd: 6A; 3rd: 8A)
- P15: The function has not been activated yet
- P16: ODO reset: press and hold "+" for 5 seconds
- P17-P19: The functions have not been activated yet

Limited Warranty Terms

All Raddy electric vehicles, and their individual Covered Components (as defined in this article), are protected against all manufacturing defects in material or workmanship for certain time frame after receipt of the electric vehicles by the customer (the "Warranty Period"). This Limited Warranty is only in accordance with the following terms:

- Only the original owner of an electric vehicle purchased from Raddy 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 any sale or transfer of the e-bike to another person, and under no circumstances shall the Limited Warranty apply to any subsequent owner or other transferee of the e-bike.
- The Limited Warranty is expressly limited to the replacement of a defective lithium ion battery (the "Battery"), controller (each a "Covered Component") and motor (each a "Covered Component") for 1 year.
- The Covered Components are warranted to be free of defects in materials and/or workmanship during the Warranty Period.

In the event Raddy determines a Covered Component is defective, Raddy will, as your sole and exclusive remedy and in Raddy sole discretion: (a) repair the defective Covered Component or free of charge with new or refurbished parts; or (b) replace the defective Covered Component with a new Covered Component.

This Limited Warranty Does Not Cover

- · Normal wear and tear of any Covered Component
- Consumables or normal wear and tear parts (including without limitation tires, tubes, brake pads, cables and housing, grips, chain and spokes).
- Any damage or defects to Covered Components resulting from failure to follow instructions in the
 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 electric vehicles as sold, operator error, water damage, extreme riding, stunt
 riding, or improper follow-up maintenance.
- For the avoidance of doubt, Raddy 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. Determining whether damage or defect to an e-bike or covered component is protected by this limited warranty shall be in sole discretion of Raddy.

Shipping Damage

Damage to a Covered Component during shipping is not covered by this Limited Warranty, but we will replace such damaged Covered Components if you:

- Notify Raddy of a Covered Component damaged in the shipping process within thirty (30) days of your receipt of the e-bike;
- Provide Raddy with a dated picture/video of the damaged Covered Component;
- Return all original packaging and paperwork included with the e-bike at your sole cost, unless Raddy agrees writing to pay your shipping costs;
- Note any immediately recognizable damage on the shipper's Bill of Landing prior to signing off on the shipment.

Shipping damage claims are very time sensitive and it is your responsibility to immediately inspect the electric vehicle for damage upon receipt.

If you choose to set up your own independent shipping method, such as use of a freight forwarder or other similar service, Raddy will not replace any Covered Components damaged during such shipping method.

Credit Card Chargebacks

If any electric vehicles purchase becomes subject to a credit card chargeback in any amount, and you are still in possession of the e-bike, then this Limited Warranty shall be invalidated until the credit card chargeback has been resolved.

Claims Process Raddy will not replace any covered component under this limited warranty without first seeing photos or videos of the damaged covered components. In order to exercise your right to receive a replacement for a Covered Component under this Limited Warranty, you must:

- Visit this page on Raddy website: <u>https://iRaddy.com/pages/contact-us</u> and contact our customer service OR
- Initiate a conversation with the Customer service on Raddy Website. An employee will initially work with you on the problem with your electric vehicle to identify potential simple fixes.
- If the employee 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 employee will also help in determining how to replace or install the new Covered Component into your electric vehicle.
- You will be responsible for shipping costs associated with returning a Covered Component, unless Raddy 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.

The remedies described above are your sole and exclusive remedies and Raddy entire liability for any breach of this limited warranty, Our liability shall under no circumstances exceed the actual amount paid by you for the e-bike, nor shall we under any circumstances be liable for any consequential incidental special or punitive damages or losses, where direct or indirect.

Some provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This limited warranty gives you specific legal rights and you may also have other rights, which vary from province to province.

To the extent permissible under applicable law Raddy disclaims all implied warranties, including without limitation the warranties of merchant ability and fitness for a particular purpose for the duration of this express limited warranty.

Warranty update

Notwithstanding the warranty information in the manual, the warranty period begins at the date of receipt of this e-bike by the customer. The latest version of the warranty terms is available at <u>www.iraddy.com</u>

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Get support: www.iraddy.com/pages/support



support@iraddy.com



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