

retrospec

Roo/Roo Rev XL

Electric Bike



OWNER'S MANUAL

Oh, hey!

Welcome to the **Retrospec** family! We're so happy to have you along for the ride. Your new Boca Rev comes with everything you need to make a splash.

A little about us:

The outside is for everyone, but not everyone feels comfortable outside. So we set out to make everyone feel at home in the open air. We believe that all people, regardless of background or experience, should enjoy the life-affirming, eye-opening beauty of nature.

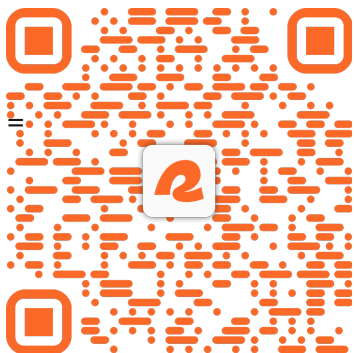
The Retrospect Pledge:

- ★ Invite everyone, regardless of experience
- ★ Focus on having fun, not being first
- ★ Be nice. It's that simple.
- ★ Keep spirits high, even if energy is low
- ★ Leave judgment at the doorstep

Turns out, you're a natural.

It doesn't have to be intense to be super fun, but you know that. Regardless of your experience, we're here to guide you at every step so you can feel at home outside.

Need some help? Hit us up:



Before Your First Ride


Congratulations on your purchase of a **Retrospec** electric bike! We take pride in designing and manufacturing our EBikes to meet the highest international quality standards.

Before assembling your bike, carefully read all included manuals to ensure proper setup.

For your safety, we strongly recommend having your bike inspected by a professional mechanic at a local bike shop after assembly. They can verify your work and perform essential safety checks. To find a nearby **Retrospec** dealer, visit our [<https://retrospec.com/pages/dealer-locator>].

Please keep this manual for future reference and review all included manuals before your first ride.

Proposition 65 Warning

 **Warning!** This product contains chemicals, including carbon black, known to the State of California to cause cancer, birth defects, or other reproductive harm.


Step 1: Unpacking Your Bike

Prepping the Area

Choose a level, clean space for assembly. Lay down a blanket, large piece of cardboard, or similar material to protect the bike once it's out of the box.

Opening the Box

Carefully cut the tape with a box cutter.

 **Hot Tip:** Use needle-nose pliers to remove staples before lifting the bike out. This helps prevent scratches to both you and the bike.

 **Caution:** Watch out for sharp edges and staples while handling the box. Having a second person to assist can make this step easier.

 **Important: Do not lay the box flat and cut it open—this could damage the bike.**

Removing Packing Materials

- Do not rotate the handlebar or fork until all packing materials and zip ties are removed to prevent damage.
- Cut zip ties carefully, avoiding contact with tires, cables, or the frame. Diagonal cutters work best.
- Place small parts in a designated area to prevent loss.

Checking for Loose Parts

Thoroughly inspect the carton and small parts box to ensure no components are left behind.

Keeping the Box and Packing Materials

Hold onto the box and packing materials for a short period in case a return is needed.

Inspecting for Shipping Damage

Examine the bike for any visible damage that may have occurred during shipping. If you find any, contact **Retrospec** immediately.

Step 2: Front Fender, Headlight, and Front Wheel Installation

2.1 Installing the Front Fender and Headlight

1. Locate the Mounting Bolt

Find the long bolt, washer, and nut, which may be in the parts bag/box or already inserted into the top of the fork. If the bolt is threaded into the top of the fork arch, remove it using a hex wrench (typically 4mm or 5mm, found on the included multi-tool). (See Fig. 1)

2. Attach the Fender and Headlight

Line up the mounting tab on the top of the fender with the fork arch hole at the back of the fork arch (for models with rigid forks, this will be at the back of the fork crown), followed by the headlight mounting bracket. Insert the bolt through both the fender and bracket, then tighten it snugly with the hex wrench (typically 4mm or 5mm, found on

the included multi-tool). Wait to fully tighten until you have the struts also installed.

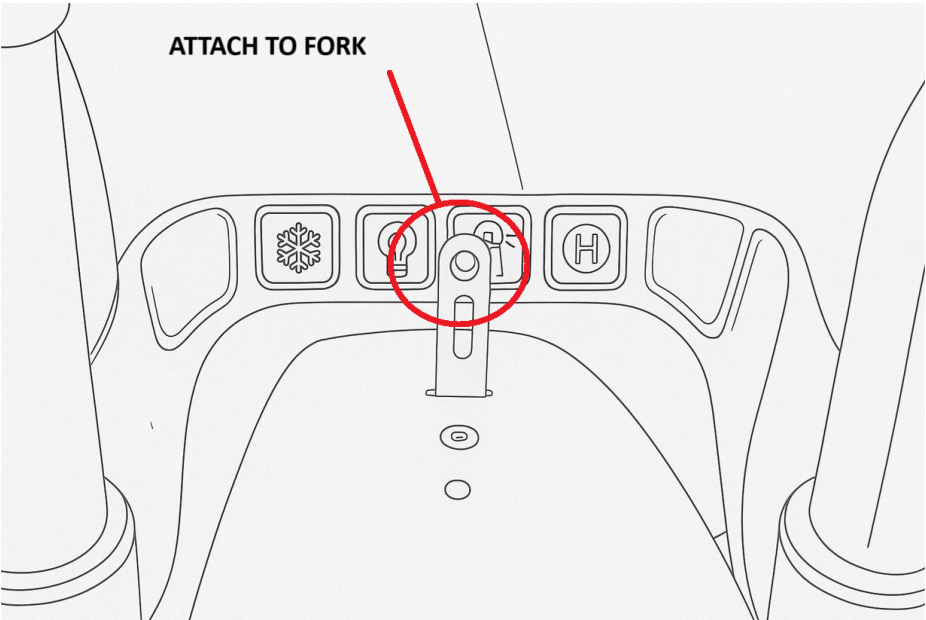


Fig. 1

3. Attach the Fender Struts

Position the fender struts over the mounting tabs on the fork. It's fine to squeeze the struts inward, as they are designed to be flexible. Using a 4/5mm hex wrench and an 8mm open-end wrench, unthread the mounting bolts. Insert the bolts through the open ends of the struts and secure them to the fork mounting tabs. Thread the nuts onto the back of the bolts, then tighten them with the 4/5mm and 8mm wrenches. (See Fig. 2)

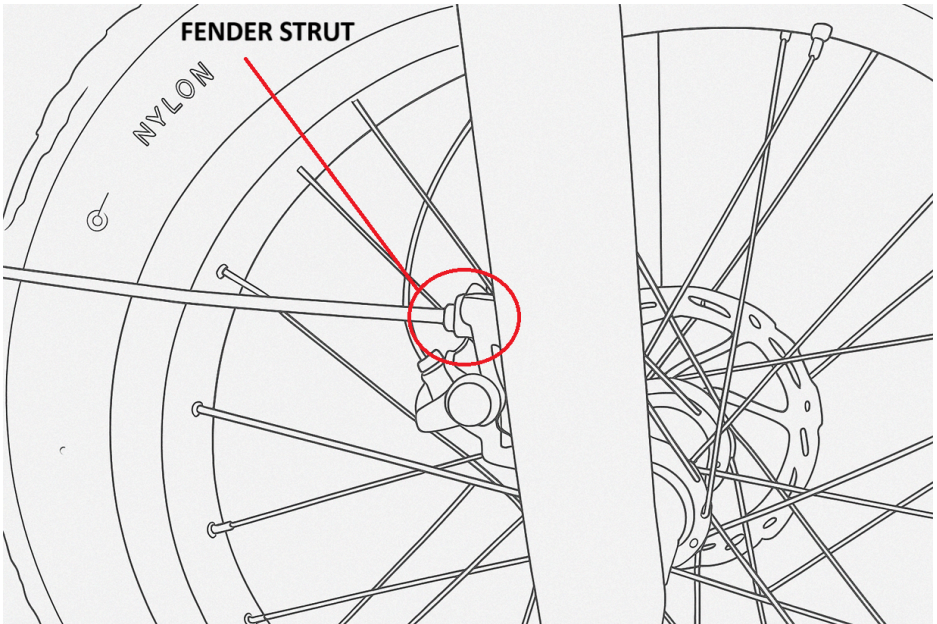


Fig. 2

4. Check Alignment and Tighten

Ensure that the fender and headlight are level and aligned. Tighten the fork arch mounting bolt with the 4/5mm hex wrench. We will finish tightening the fender struts after installing the front wheel.

2.2 Installing the Front Wheel

1. Remove the Plastic Dropout Protector

Take off the plastic dropout protector from the fork and keep it in case the bike needs to be returned or shipped.

2. Inflate the Tire

Inflate the tire to the recommended pressure, which is listed on the sidewall of the tire. Inflate slowly while closely observing the area where the tire meets the rim. If you notice the inner tube bulging out or the tire not properly seated, deflate the tube, adjust the tire and tube to ensure they are aligned correctly, and then inflate again.

3. Install the Front Wheel

Using a 17mm open-end wrench, loosen the axle nuts on the front wheel. Lift the front of the bike and carefully insert the front wheel into the fork dropouts. It may be helpful to have a second person assist. Make sure the washers are positioned between the axle nut and the fork (not between the fork and the hub).

4. Inspect Wheel Position

Ensure that the wheel is properly centered in the fork and that the rotor is correctly positioned within the brake caliper.

5. Tighten Axle Nuts

Using a 17mm wrench or adjustable wrench, tighten each axle nut a little at a time, alternating between sides. Continue tightening until each axle nut is properly secured (35-40Nm of torque).

6. Adjust the Fender

If the fender is not perfectly straight or is rubbing against the tire, don't worry — the fender braces can be adjusted. Gently bend the fender by hand to straighten it. Once aligned, tighten the strut fixing bolts.

Step 3: Handlebar & Handlebar Stem Assembly

Threadless Stem Assembly

Your handlebar comes pre-assembled with brake levers, shifter levers, and grips. Ensure the longer cable is connected to the right lever (rear brake) and the shorter cable to the left lever (front brake).

⚠ **Note:** In some regions (e.g., the UK), brake cables must be arranged in reverse. If your bike has hydraulic brakes, verify that the brake line runs from the lever to the correct caliper.

The stem is pre-installed but may require adjustment for proper alignment.

Aligning the Stem

1. Loosen the stem bolts enough to allow movement.
2. Align the stem with the front wheel (See Fig.4).
3. Tighten the stem bolts using a 5mm or 6mm hex key (Torque: 5-6Nm).

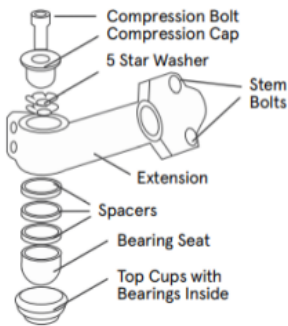


Fig. 3

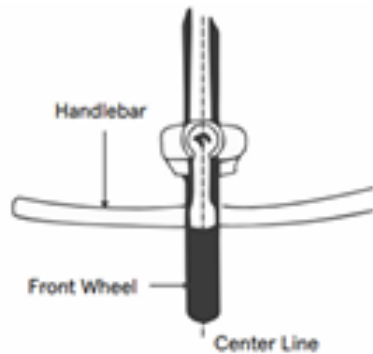


Fig. 4

Installing the Handlebar

1. Loosen the handlebar clamp stem bolts and remove the faceplate (See Fig.3).
2. Position the handlebar at the desired angle, ensuring it is centered in the stem clamp.
3. Reinstall the faceplate and snug the bolts.
4. Adjust the handlebar position for comfort. Once satisfied, tighten the handlebar clamp bolts to 5-6Nm.

Final Safety Check

- ✓ Ensure the handlebar and stem are securely tightened before riding.
 - ✓ The handlebar must not rotate up, down, or side to side within the stem.
 - ✓ The stem must not rotate in the fork.
-

Step 4: Pedal Installation

Each pedal is labeled with an "R" (Right) or "L" (Left) on the threaded end of the pedal axle. Proper installation is crucial to prevent damage to the crank arms. (Fig. 5)

Installing the Right Pedal (R)

1. Locate the pedal marked "R" (right).
2. Align it with the right crank arm (on the chain side of the bike).
3. Thread it clockwise by hand until snug.
4. Using a 15mm open-end wrench, 15mm pedal wrench, or adjustable wrench, tighten securely to 34N.m (26 lb-ft).

Installing the Left Pedal (L)

1. Locate the pedal marked "L" (left).
2. Align it with the left crank arm.
3. Thread it counterclockwise by hand until snug.
4. Using a 15mm open-end wrench, 15mm pedal wrench, or adjustable wrench, tighten securely to 34N.m (26 lb-ft).

⚠ **Important:**

- **Do not force the pedals**—cross-threading can cause permanent damage to the crank arms.
- **Double-check the tightness** before riding to ensure the pedals are securely fastened.

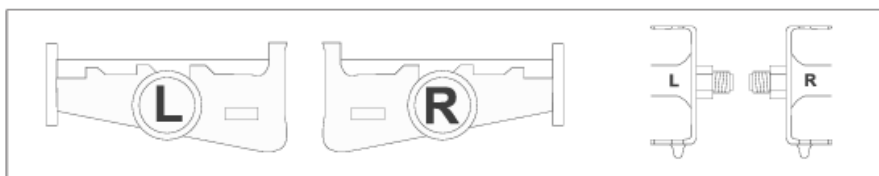


Fig. 5

Step 5: Brake Adjustment & Maintenance Guide

Proper brake function is critical for your safety. Before your first ride, verify that your brakes are properly adjusted and functioning correctly.

⚠ **WARNING:**

- Always test your brakes in a safe, controlled environment before riding.
 - Do not ride if your brakes are not functioning correctly.
 - If unsure about any adjustment, consult a professional bike mechanic.
-

Hydraulic Disc Brake Adjustment

Your hydraulic disc brakes are pre-adjusted at the factory, but it's essential to check their function before riding.

Brake Function Check

1. Lift the bike and spin both the front and rear wheels to ensure they rotate freely without making contact with the brake pads.
2. If rubbing occurs, follow these steps to realign the caliper:
 - Loosen (but do not remove) the caliper fixing bolts.

- Squeeze the brake lever to center the caliper over the rotor.
- While holding the brake lever, tighten the caliper fixing bolts to 8Nm.
- Spin the wheel again to confirm there is no rubbing.
- Repeat the process for the other brake if necessary.

⚠ WARNING: Do not ride if the wheel does not spin freely or if the rotor is misaligned.

Brake Lever Check

- Squeeze the brake lever—it should feel firm and stop the wheel before the lever touches the handlebar.
- If the lever reaches the handlebar or you notice fluid leakage, do not ride. Contact Retrospec or your Dealer for assistance.

Maintenance

- Hydraulic brakes are self-adjusting but require annual bleeding to maintain optimal performance.
- Only use manufacturer-recommended hydraulic brake fluid. Using the wrong fluid can cause brake failure.
- Professional servicing is highly recommended to ensure proper maintenance.

Checking Brake Pad Wear & Replacement

Brake Pad Wear

- Replace brake pads immediately if they are 1mm thick or less. (Fig. 6)

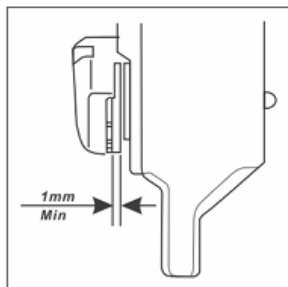


Fig.6

Pad Replacement Steps

1. Remove the Retaining Pin that secures the pads inside the caliper.
2. Remove the Worn Pads:
 - Pull the inner pad downward using the tab.
 - Use a thin screwdriver to lift the outer pad, then remove it with pliers.
3. Transfer Springs from the old pads to the new ones.
4. Install the New Pads:
 - Insert the new pads into the caliper at a slight incline.
 - Ensure the spring hooks onto the small piston—the pads should stay in place when pulled down.
5. Reinstall the retaining pin into the pads on the caliper.
6. Engage the Brake Lever a few times to ensure proper pad engagement.
 - Expect minor noise initially as the pads "bed in."

WARNING:

- Do not touch the brake rotor or pads with your bare hands—oils from your skin can reduce braking performance.
- If the rotor or pads become contaminated with oil or grease, replace them immediately.

Professional Maintenance

For optimal performance and safety, have your brakes regularly inspected and serviced by a qualified bike mechanic or authorized dealer.

Step 7: Derailleur Gears Maintenance and Adjustment

Your bike's derailleur and gear system are factory-adjusted, but cable stretch and settling can occur after the first ride. That's why it's essential to check and fine-tune your shifting system after your initial use, and periodically as you ride. For the best results, consider having your ebike serviced by your dealer or a professional bike shop.

To keep your drivetrain running smoothly and extend its life, ensure it stays clean and properly lubricated. Before starting, ensure you are familiar with the drivetrain components.

Gear & Shifter Basics

- **Left Shifter:** Controls the front derailleur and chainring(s).
- **Right Shifter:** Controls the rear derailleur and cogset.

Rear Sprockets Overview

- **Largest Rear Cog:** Best for low-speed riding (hill climbs, technical terrain).
- **Smallest Rear Cog:** Ideal for higher-speed cruising and downhill riding.

Shifting Tips

- **Pedal Forward:** Always shift while moving; avoid shifting when the bike is stopped.
- **Gentle Pressure:** Use smooth pedal pressure when shifting gears.
- **No Backpedaling:** Avoid backpedaling while shifting.
- **Be Gentle:** Don't force the shifter levers.

7.1 Rear Derailleur Adjustment

The rear derailleur has two limit screws—High (H) and Low (L)—that prevent the chain from shifting too far. (Fig. 7)

- H Screw: Stops the chain from overshooting the largest cog.
- L Screw: Prevents the chain from moving too far inward toward the frame.

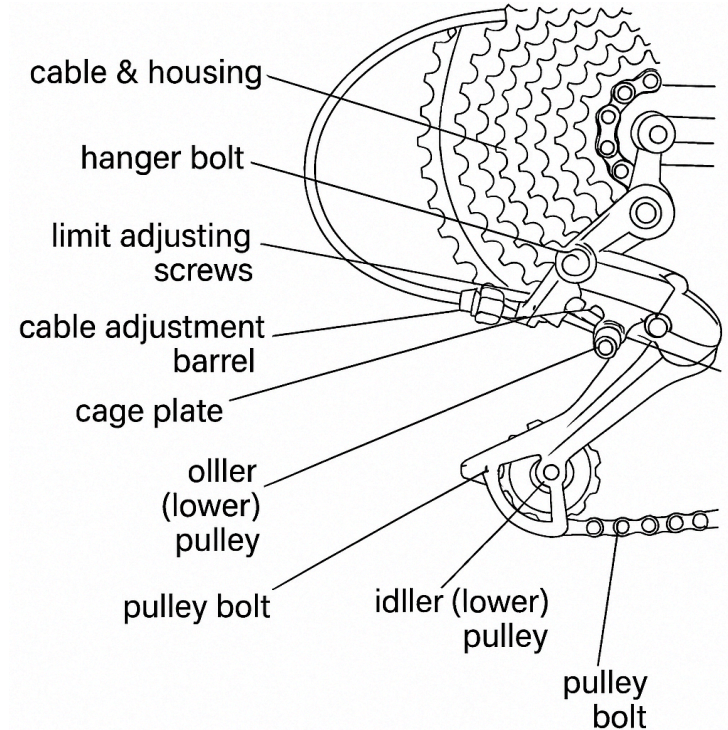


Fig. 7

Adjusting the Rear Derailleur

1. Set the Cable Tension:

- Shift Position: Move the chain to the smallest rear cog and the largest front sprocket.
- Check for Slack: Inspect the cable, if there's slack, loosen the cable nut or hex bolt, pull the cable tight, and then retighten (target tension: 7Nm).

2. High (H) Limit Adjustment:

- Locate the H Screw: Find the high limit adjustment on the rear derailleur.
- Adjust: Turn the screw until the upper guide pulley sits just below the vertical line of the largest rear cog.

3. Low (L) Limit Adjustment:

- Locate the L Screw: Find the low limit adjustment.
- Adjust: Turn the screw so the upper guide pulley is positioned just below the vertical line of the smallest rear cog.

4. Fine-Tune Cable Tension:

- Shift to 2nd Gear: Change from the highest gear to the 2nd gear.
- If the Chain Doesn't Shift: Increase tension by turning the cable adjuster barrel counterclockwise.
- If the Chain Overshifts, Decrease tension by turning the adjuster clockwise.

5. Final Tension Adjustment:

- With the Chain in 2nd Gear: Gently increase the inner cable tension as you pedal forward.
- Listen Carefully: Stop adjusting just before you hear the chain rub against the 3rd gear, indicating proper alignment.

Additional Tips

- Keep It Clean: A clean drivetrain ensures optimal shifting.
- Lubricate Wisely: Use a dry lubricant, which is usually best for bike chains and drivetrain systems.

Step 8: Assembling the Saddle onto the Seatpost

1. Loosen the seat clamp nut.
2. Insert the seat post into the seat clamp, ensuring it is firmly seated against the seat clamp limit and properly aligned with the saddle rails.
3. Hand-tighten the seat clamp nut.
4. Insert the seat post into the frame's seat tube, then rotate the saddle until it is level with the ground. You can fully tighten the seat now or after Step 8.1.

⚠ WARNING! Do not sit on or test the saddle until completing all steps!


⚠ The seat post must be inserted deep enough that the minimum insertion line is not visible!

8.1 Inserting the Saddle/Seatpost Assembly Into the Frame Seat Tube (Quick-Release Seatpost Clamp)

1. Open the seat post quick-release lever (Fig. 8). Apply a small amount of grease to the seat post. Insert it into the seat tube until the minimum insertion line is no longer visible.



Fig. 8

 **Adjustment Tip:** The quick-release lever should require some force to close. If it closes too easily or fails to hold the seat post securely, tighten the adjusting nut on the opposite side. If it's too difficult to close, loosen the nut slightly.

2. Once you're satisfied with the seat post height, close the quick-release lever, ensuring it is secure. The tightness can be fine-tuned by adjusting the nut opposite the lever.

8.2 Roo Seatpost

Roo is equipped with a telescoping seatpost consisting of two tubes—one sliding inside the other. This design offers a greater range of saddle height adjustment compared to a standard single-tube seatpost.

Adjusting Saddle Height

1. Begin by adjusting the outer tube within the bike frame. ⚠ Do not exceed the minimum insertion line! The post must be inserted deep enough to ensure safety and structural integrity.
2. If additional saddle height is needed, loosen the seatpost quick-release lever and raise the inner tube of the seatpost. ⚠ Again, do not exceed the minimum insertion line! (Fig. 9)

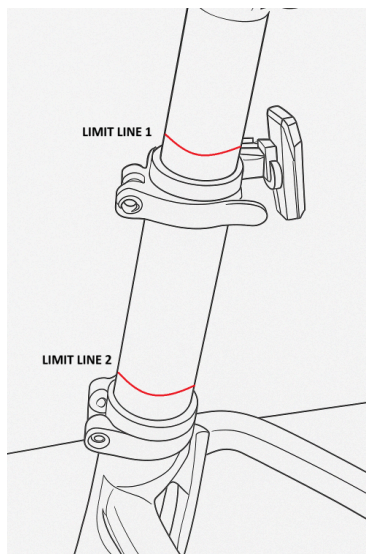


Fig. 9

Fore/Aft Saddle Adjustment

Roo's seatpost provides enhanced fore/aft adjustment via an adjustable saddle clamp:

- When the clamp mechanism is slanted away from the handlebars, the saddle sits 25mm behind the seatpost center.
- When the clamp mechanism is slanted toward the handlebars, the saddle sits 5mm behind the seatpost center.

This difference allows for approximately 1 inch of fore/aft adjustment, offering flexibility for a comfortable riding position if standard saddle adjustments are insufficient. (Fig. 10)

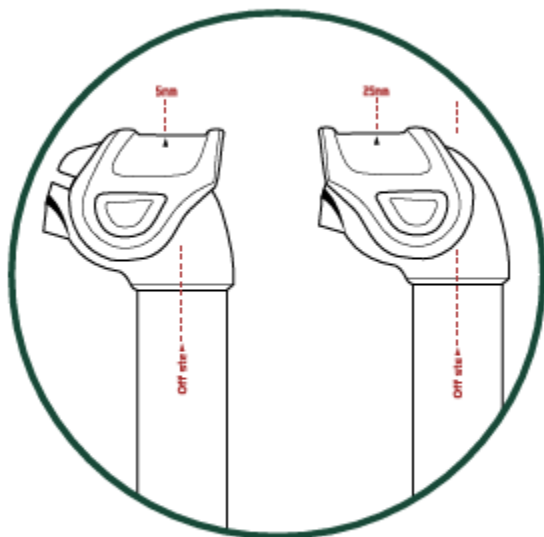


Fig. 10

⚠ **WARNING:** Always ensure both the outer and inner seatpost tubes are inserted past the **minimum insertion line** to prevent failure and potential injury.

Before Your First Ride: Battery Preparation

To ensure a safe and reliable first ride, follow these steps:

1. **Fully Charge the Battery**
 - Charge the battery completely before your first ride for optimal performance.
2. **Refer to the Safety Manual**
 - Follow the Lithium-Ion Battery Safety Manual for proper charging procedures and safety guidelines.
3. **Check Battery Connection**
 - Ensure the battery is securely attached and all connections are clean and tight.
4. **Inspect for Damage**
 - Check for any visible damage or irregularities before riding.
 - If any issues are found, consult the manual or contact support before use.

⚠ **NOTICE:** Failure to follow these steps may result in reduced performance or safety risks.

Battery Installation & Removal – retrospec Roo Rev 48V EBike

The battery on the retrospec Roo Rev 48V EBike is located behind the seat tube and comes pre-installed.

Removing the Battery:

1. Insert the key into the battery lock. (Fig. 11)
2. Turn the key to unlock the battery.
3. Pull the battery up and slightly back to release it from its mount.

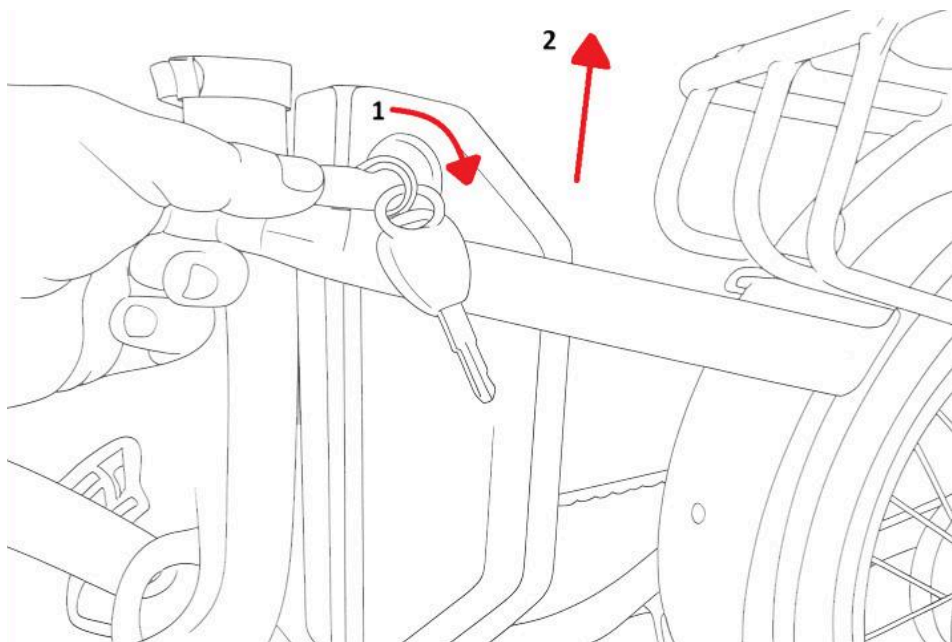


Fig. 11

Reinstalling the Battery:

1. Align the battery with the mounting slot. (Fig. 12)
2. Press the battery into place, following the reverse steps of removal.
3. Ensure the battery clicks securely into place and is locked before use.

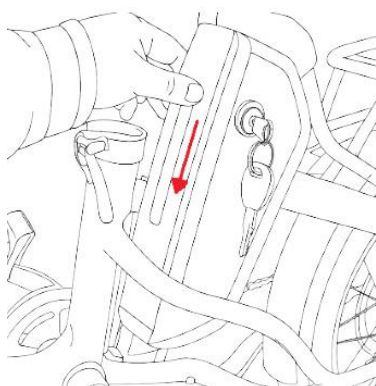


Fig. 12

Main Technical Specifications

Parameter	Specification
Model	Roo Rev
	Roo Rev XL
Electrical	48V/750W

Motor Specifications

Parameter	Specification
Motor Type	Brushless Planetary Gear drive
Rated Torque	85Nm
Rated Power	750W
Rated Voltage	48V

Battery Specifications

Parameter	Specification
Battery Type	Lithium-Ion
Voltage	(47.9V)
Amp Hours	(14.4AH)
Watt Hours	(689.7Wh)

SAVE THESE INSTRUCTIONS

MOVING AND STORAGE INSTRUCTIONS

Prolonged exposure to UV rays, rain, and the elements may damage the enclosure materials. Store indoors when not in use.

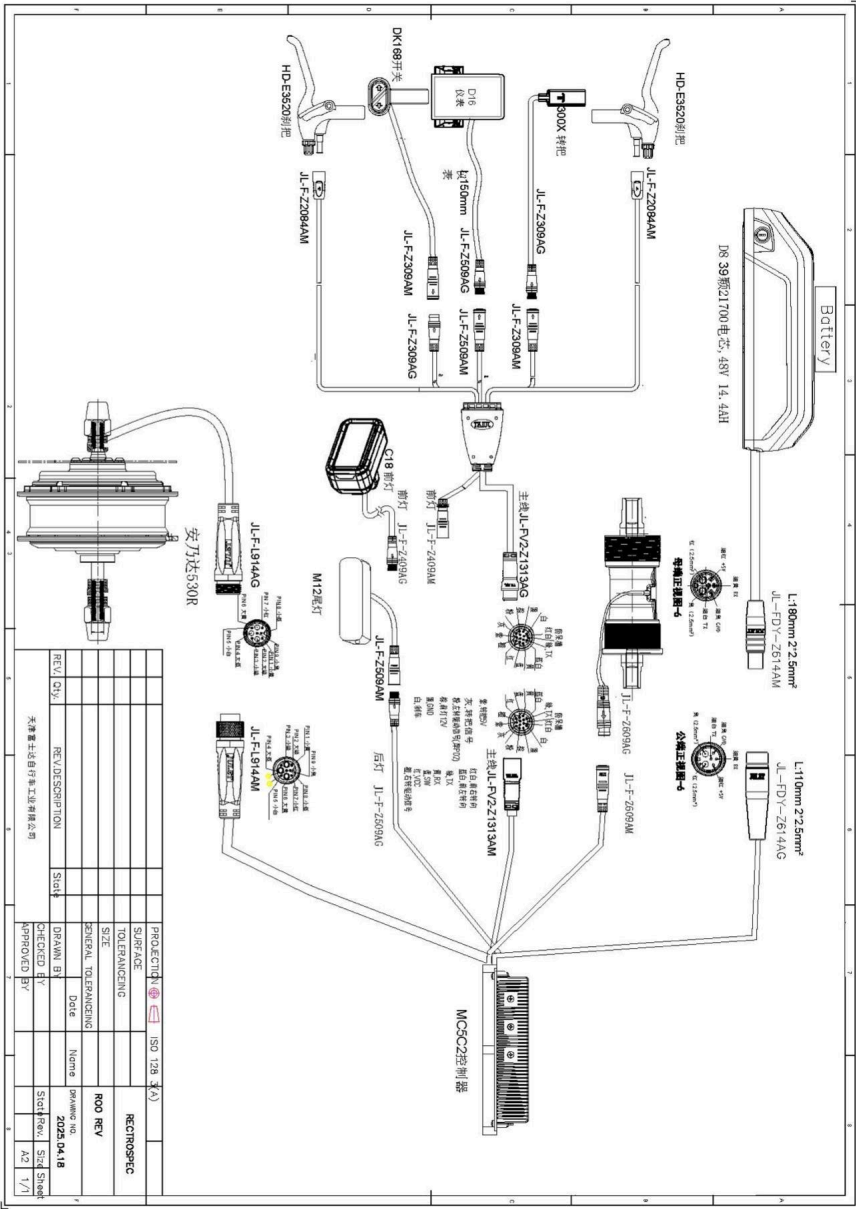
IMPORTANT SAFETY INSTRUCTIONS

⚠ **WARNING** – When using this product, it is important to follow basic precautions, including the following:

- a) Read all instructions before using the product.
- b) To reduce the risk of injury, close supervision is necessary when the product is used near children.
- c) Do not put fingers or hands into the product.
- d) Do not use this product if the flexible power cord or output cable is frayed, has broken insulation, or shows any other signs of damage.
- e) This bike is not intended for use at elevations greater than 2000 meters above sea level.
- f) ⚠ **WARNING – Risk of fire – No user-serviceable parts.**
- g) Use only the original charger that came with the bike. Model STC-8137LD by Kunshan St. Electronics Co., Ltd.
- h) Leave it indoors when charging or when the bike is not in use.
- i) The battery must be charged when the ambient temperature is between 0°C (32°F) and 40°C (104°F). Never charge the battery when the ambient temperature is outside this range.
- j) This equipment is not designed for use at ambient temperatures below -20°C (-4°F) or above 40°C (104°F).
- k) **Recommended storage temperature:** 23±2°C

Never exceed the **maximum load capacity of 120 kg (265 lbs).**

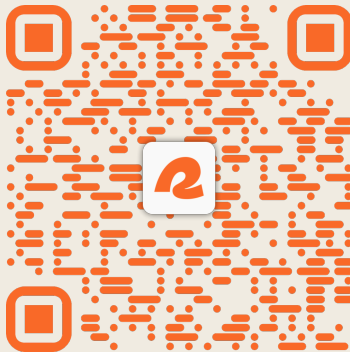
Maximum speed – Your electric bike can reach a top speed of **32 km/h (20 mph).**



PROJECT		ISO 128	(A)
SURFACE		RETROSPEC	
TOLERANCING		ROD REV	
SIZE		GENERAL TOLERANCING	
DATE		Norme	
DRAWN BY		2025.04.18	
CHECKED BY		S4.1	
APPROVED BY		A2.1	

Contact Us

Need some help with your new gear? Just want to say “hey” and talk to someone on our team? We’re here for that too.



Give us a follow, while you're at it:

@retrospec

#retrospec

#readytooutdoor