

Keyword: Electric Bike Test: How We Do It

Meta Title: Electric Bike Test: How We Do It – Your Guide to the Best iScooter Rides

Meta Description: Electric Bike Test: How We Do It – See how we evaluate iScooter e-bikes on roads, hills, and circuits to ensure maximum performance, safety, and enjoyment.

Electric Bike Test: How We Do It

When it comes to choosing the right [electric bike](#), knowing how it performs under real-world conditions is just as important as the specs on paper. That's why an Electric Bike Test is essential for riders who want safety, reliability, and the best value for their money. From evaluating battery life and motor power to testing brakes, handling, and comfort, every aspect of the bike is carefully assessed to give you a clear picture of what to expect on your daily rides.

In this guide, we'll walk you through our step-by-step testing process, share tips for a safe and effective test ride, and compare the best-performing electric bikes on the market, helping you make an informed decision before your next purchase.

Why You Should Test Your Electric Bike

Testing an electric bike is essential to ensure it meets your personal needs and performs as promised. While specifications can provide a general idea, only a hands-on electric bike test can confirm proper fit, handling, motor power, and battery life. A test ride helps identify any flaws, ensures comfort, and allows you to compare different models side by side. By testing before you buy, you gain confidence that your electric bike will deliver the performance, reliability, and riding experience you expect.

Step-by-Step Electric Bike Testing Process

Handling & Circuit Performance Test

Our electric bike testing process begins with a handling and circuit performance evaluation, designed to assess how each model maneuvers in real-world conditions. We use a paved 1-mile test loop featuring four right turns and a small incline with 30 feet of elevation gain, providing a balanced mix of corners and mild elevation changes.

For the first lap, the e-bike is powered on, but the pedal assist system (PAS) is set to PAS 0, meaning no motor assistance is applied. During this lap, we measure the time to complete the loop and calculate the average speed in miles per hour. We then repeat the lap at each PAS level to assess how the motor engages at different assistance settings.

This initial test is critical because it allows us to familiarize ourselves with each e-bike consistently. It helps evaluate the motor's responsiveness, the effectiveness of its torque or cadence sensor, and the bike's overall handling. Additionally, it reveals the achievable speeds for each PAS level, guiding our settings for subsequent tests.

To maintain accuracy, we apply a consistent pedal effort, roughly 70% of a typical commuter pace, fast enough to get to work on time but without excessive strain. This controlled cadence ensures we isolate the motor's performance from our own input, allowing a clear understanding of how the bike responds under real riding conditions.

Range & Endurance Test

Measuring an electric bike's range is a critical part of our electric bike test, as it shows how far the bike can travel under real-world conditions. Our range and endurance testing is conducted on a consistent loop of paved multi-use paths in St. George, Utah, including city streets, minor hills, and smooth and bumpy roads.

We perform two main evaluations using different Pedal Assist System (PAS) levels:

1. **High Assistance Test** – The bike operates at maximum PAS, allowing higher speeds while draining the battery quickly.
2. **Low Assistance Test** – The bike operates at the lowest meaningful PAS, providing consistent motor support over a longer ride. If PAS 1 is too weak, we increase the setting until the bike maintains a steady 8–10 mph.

During each test, we record the distance traveled, average speed, elevation gain, and elapsed time. This data gives an accurate estimate of the bike's minimum and maximum practical range and allows us to compare the results with the manufacturer's advertised range.

To ensure thorough evaluation, we conduct **three range-focused tests**:

- **Test #1: Speed Priority** – Pushes for the highest speed, typically resulting in lower mileage.
- **Test #2: Real-World Balanced** – Reflects a typical ride, balancing speed and range.
- **Test #3: Range Priority** – Maximizes mileage by riding economically at lower average speeds, including regenerative braking if available.

For each test, we track distance and average speed, filtering out any unusually slow data (below 20% of peak speed) to maintain accuracy. This process provides a comprehensive view of range and endurance, helping riders know exactly what to expect from their e-bike.

Hill Climb & Motor Power Test

Testing an electric bike's hill climbing ability is a key part of our electric bike test process. We start on a 250-foot (76 m) smooth road with an average 8% incline, beginning from a standstill with a "kick-off." Each bike is tested with at least 80% battery charge, and we repeat the climb five times, recording average speed (MPH) and the time taken.

For more extreme evaluation, we take every e-bike to a local paved uphill path called Hell Hole Trail, a steep $\frac{1}{3}$ -mile course with a 12% average grade. This hill is challenging even for strong cyclists and pushes powerful e-bikes to their limits. Each bike is tested at maximum Pedal Assist Setting (PAS), and if the model has a throttle, we do a second climb using throttle only. During these rides, we record average speed, climb time, and note any motor sounds or handling quirks.

Not all e-bikes can complete Hell Hole Trail, so conquering it is a benchmark of capability. Alongside the numerical data, we provide insights on how the bike feels during climbs, including motor smoothness, noise, and ride comfort. This combination of objective measurements and subjective experience gives a complete picture of each bike's hill performance.

Braking & Safety Test

A crucial part of our electric bike testing process is evaluating braking performance and overall safety. To do this, we set up a controlled test course in a parking lot using traffic cones spaced in 5-foot increments.

Each e-bike is pedaled up to the Class 2 motor-assisted speed limit of 20 MPH, simulating real-world conditions like encountering a car suddenly backing out of a driveway. Once the front wheel reaches the first set of cones, we apply the brakes fully while maintaining control to stop as quickly and safely as possible. The stopping distance is measured from the start point to where the bike comes to a complete stop.

This test is repeated a minimum of ten times, and the results are averaged to provide an accurate measurement. We apply all brakes simultaneously (excluding a rear friction brake if present) using maximum force while avoiding wheel lockup.

By comparing these averages across different e-bike models, brake types, rotor sizes, and manufacturers, we can identify which bikes perform above or below the norm. This ensures riders have reliable, safe braking performance. Occasionally, we encounter e-bikes with exceptionally short stopping distances, which earn extra recognition for safety excellence.

Battery Health & Charging Efficiency Test

The [battery](#) is the heart of your electric bike, powering every ride and determining your range and performance. Regularly testing your battery ensures it is in top condition, delivers consistent performance, and maximizes lifespan. Here's a step-by-step guide on how to test an electric bike battery using a multimeter.

Steps to Test Your Electric Bike Battery

1. Prepare Your Workspace

- Switch off your bike and disconnect it from any power source.

- Ensure your area is clean, well-lit, and safe.
2. **Locate and Remove the Battery**
 - Most electric bikes have the battery mounted on the frame or luggage rack.
 - Follow your manufacturer's instructions to safely remove it.
 3. **Fully Charge the Battery**
 - Charge the battery completely for accurate testing results.
 4. **Set Your Multimeter**
 - Choose the appropriate voltage range (commonly 24V, 36V, or 48V).
 5. **Connect the Multimeter**
 - Firmly attach the probes to the battery terminals to ensure stable readings.
 6. **Read the Voltage**
 - Turn on the multimeter and check the voltage. Values below the specified range may indicate a charging or discharging issue.
 7. **Perform a Charge Test (Optional)**
 - If your battery supports fast charging, measure the voltage while charging to assess performance.
 8. **Interpret the Results**
 - Compare your readings with the manufacturer's specifications. Significant deviations may indicate a faulty battery or individual cells.
 9. **Consult a Professional if Needed**
 - If results are concerning or unclear, seek help from an electric bike professional for a full diagnostic.

Safety Precautions Before Testing Your E-Bike

Before taking an electric bike out for a test ride, following safety precautions is essential to ensure both accurate testing results and a secure riding experience.

1. Bring Your Riding Gear

To replicate your normal riding conditions, bring your own pedals, shoes, [helmet](#), and any accessories you use daily. Familiar gear ensures comfort and allows you to assess the bike as you would in real-life use.

2. Adjust the Bike Fit

Proper fit is crucial for safety and performance. Adjust the seat height, handlebar position, and pedal placement to match your body dimensions. A well-fitted e-bike reduces fatigue, improves control, and ensures a more accurate test ride.

3. Check the Battery

A fully charged battery is necessary for evaluating the bike's range, motor performance, and pedal-assist functionality. Testing with a partially charged battery can give misleading results and underrepresent the bike's capabilities.

4. Inspect Key Components

Before riding, quickly check brakes, tires, suspension, and lights. Ensuring all components are functional prevents accidents and helps you focus on evaluating the bike's performance rather than troubleshooting issues mid-ride.

Tips for a Successful Electric Bike Test Ride

1. Plan Ahead

Before your test ride, research the bikes you are interested in and make a shortlist. While it's good to have preferences, keep an open mind, trying different styles and brands, such as iScooter, iSinwheel, or iHoverboard, allows you to compare features, comfort, and performance effectively.

2. Get Comfortable

Bring your usual riding gear and accessories, including pedals or shoes if needed. Adjust the seat height, handlebars, and pedal position to suit your body. If you feel any discomfort, ask staff to help with adjustments. A proper fit ensures a natural riding experience and accurate assessment of the bike.

3. Ask Questions

Don't hesitate to ask staff about the bike's features, performance, or specifications. Experienced staff can provide valuable insights and help you understand which e-bike best suits your needs.

4. Relax and Enjoy

Most importantly, enjoy the ride! Focus on how the bike feels, its handling, and how it suits your daily riding needs. A relaxed test ride allows you to make a confident, informed decision when purchasing your electric bike.

Where to Test Your Electric Bike Safely

Experience your electric bike firsthand at iScooter's verified [test ride locations](#) across the UK and Europe. In the UK, visit **Escooter Clinic Caledonian Road, London (+44 2037613762)**, **Alphascootz, Northampton (+44 7380 110256)**, or the **iScooter UK Test Ride Store**. In Europe, try **Ayu-Mã Chung, Łazy, Poland**, **X Future GmbH-XC5, Ahrensfelde, Germany (+49 030 6920 7837)**, or **Electric House, Levallois-Perret, France**. Test rides let you assess handling, comfort, battery performance, and pedal assist before buying, ensuring you choose the right e-bike for your needs.

Top Electric Bikes Tested: Performance Comparison

Image					
Model	U1	M10	U2	U4	UCity
Price	£338.99	£525.99	£539.99	£488.99	£569.99
Motor	Peak 500W	Peak 500W	Peak 500W	Peak 500W	Peak 500W
Max Range	40 Miles	60 Miles	65 Miles	55 Miles	55 Miles
Max Speed	15.5 MPH Default, Unlock to 20 MPH	15.5 MPH Default, Unlock to 22 MPH	15.5 MPH Default, Unlock to 20 MPH	15.5 MPH Default, Unlock to 20 MPH	15.5 MPH Default, Unlock to 20 MPH
Default Speed	6.2/9.3/15.5 MPH	3.7/6.2/9.3/12.4/15.5 MPH	3.7/6.2/9.3/15.5 MPH	6.2/9.3/15.5 MPH	3.7/6.2/9.3/12.4/15.5 MPH

Unlock Speed	9.3/15.5/20 MPH	6.2/9.3/12.4/15.5/22 MPH	6.2/9.3/15.5/20 MPH	9.3/15.5/20 MPH	6.2/9.3/12.4/15.5/20 MPH
Battery	36V 7.8Ah (280.8 Wh)	36V, 10.5Ah (378 Wh)	36V 13Ah (468Wh)	36V 10.4Ah (374.4Wh)	36V, 10.4Ah (374.4Wh)
Sensor	Cadence sensor	Cadence sensor	Cadence sensor	Cadence sensor	Cadence sensor
Pedal Assist	4-Level Speed Assist	7-Level Speed Assist	5-Level Speed Assist	4-Level Speed Assist	7-Level Speed Assist
Suspension	Rear Suspension	Advanced Front Suspension Fork	Adjustable Front Spring Suspension Fork+Seat Suspension	Adjustable Front Suspension Spring Fork	Adjustable Front Spring Suspension Fork
Brake	Front and rear disc brakes	Mechanical brakes	Front and rear disc brakes	Front and rear disc brakes	Front and rear disc brakes
Tire	14*1.95" Pneumatic	26" x 1.95" Pneumatic	26*1.95" Chaoyang	16*2.15" Pneumatic Tires	26" x 1.95" Pneumatic

	atic Tires		Pneuma tic Tires		
Saddle	Urban comfort ergono mic seat	Breatha ble ergono mic sport cushion seat	Urban comfort ergono mic seat	Urban comfort ergono mic seat	Urban comfort ergono mic seat
Headlig ht	High output integrat ed LED, adjusta ble angle	High output integrat ed LED, adjustab le angle	High output integrat ed LED, adjustab le angle	High output integrat ed LED, adjustab le angle	High output integrat ed LED, adjustab le angle
Tail Light	Wiring LED light	Rear LED	Wiring LED light	button battery	button battery
Rear Rack	None	Suppote d	Support ed	Support ed	Support ed
Fender s	Front and rear full covera ge	Front and rear full coverag e	Front and rear full coverag e	Front and rear full coverag e	Front and rear full coverag e
Charge r	42V 1.5Ah	42V 2Ah	42V 2Ah	42V 2Ah	42V 2Ah

Frame	Alloy steel folding frame	Alloy steel frame	Iron frame	Alloy steel folding frame	Iron Frame
Water Resistance	IP65	IP65	IP65	IP65	IP65
Load Capacity	264 lbs (120 kg)	330 lbs (150 kg)	264 lbs (120 kg)	264 lbs (120 kg)	264 lbs (120 kg)
Seat Height	Adjustable	Adjustable	Adjustable	Adjustable	Adjustable
Rider Height	4'9" ~ 6'1" (150cm ~ 185cm)	5'3" ~ 6'5" (160cm ~ 195cm)	5'3" ~ 6'3" (160cm ~ 192cm)	5'3" ~ 6'3" (160cm ~ 192cm)	5'3" ~ 6'4" (150cm ~ 192cm)
Bike Weight	51.4 lbs (23.2 kg)	45.1 lbs (20.5kg)	59.5lb (27kg)	58.42 lbs (26.5 kg)	61.7 lbs (28 kg)

iScooter U1 – Compact & Efficient Urban Ride

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The [iScooter U1](#) combines sleek design with urban practicality. Powered by a 500W peak motor and a 36V 7.8Ah battery, it delivers up to 40 miles per charge at speeds up to 15.5

MPH (unlockable to 20 MPH). Its 14" pneumatic tires and rear suspension ensure smooth rides over city streets, while the high-output LED headlight and rear LED light keep you visible and safe. With 4-level pedal assist and a foldable alloy steel frame, commuting or storing is effortless. Ideal for riders 4'9"–6'1", the U1 supports a 264 lbs load capacity, offering comfort and reliability for daily urban travel.

iScooter U2 – Long-Range Commuter

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The [iScooter U2](#) is perfect for commuters seeking power and distance. Featuring a 500W motor and 36V 13Ah battery, it reaches up to 65 miles per charge. Speeds of 15.5 MPH (unlockable to 20 MPH) combined with 5-level pedal assist deliver smooth acceleration. 26" Chaoyang tires, front suspension, and rear seat suspension provide a plush ride on city streets or suburban roads. Full front and rear fenders, disc brakes, and rear rack support make it a practical, stylish choice. Adjustable seat height suits riders 5'3"–6'3", handling up to 264 lbs, making the U2 ideal for long, comfortable urban journeys.

iScooter U3 – Lightweight, Stylish, & Agile

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The [iScooter U3](#) is a lightweight urban scooter designed for effortless city commuting. Its 500W motor and 36V 7.8Ah battery offer a 50-mile range, with speeds up to 15.5 MPH (unlockable to 18.6 MPH). Enjoy a smooth ride with 16" pneumatic tires and adjustable front suspension. 4-level pedal assist, high-output LED headlight, and full fenders ensure safety and convenience. The folding alloy steel frame makes it easy to store or carry. Suitable for riders 4'9"–6'1", with a 264 lbs load capacity, the U3 is an efficient, stylish solution for daily urban travel.

iScooter U4 – Comfortable, Versatile Urban Scooter

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The [iScooter U4](#) combines power, comfort, and reliability. Equipped with a 500W motor and 36V 10.4Ah battery, it covers 55 miles at speeds up to 15.5 MPH (unlockable to 20 MPH). Its 16" tires and adjustable front suspension provide a smooth ride, while 4-level pedal assist makes acceleration effortless. Features include LED headlight, full fenders, rear rack support, and front & rear disc brakes for safety. The alloy steel folding frame is compact and practical, supporting riders 5'3"–6'3" up to 264 lbs, ideal for daily commuting or leisure rides.

iScooter UCity – Urban Cruiser with Extended Features

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The [iScooter UCity](#) is built for serious urban explorers. Powered by a 500W motor and 36V 10.4Ah battery, it offers 55 miles of range and speeds up to 15.5 MPH (unlockable to 20 MPH). 26" pneumatic tires with adjustable front suspension and 7-level pedal assist guarantee a smooth, controlled ride. Full fenders, rear rack, and disc brakes enhance safety and utility. Ideal for riders 5'3"–6'4" with a 264 lbs capacity, the UCity balances performance, comfort, and style for daily commuting or weekend adventures.

iScooter M10 – High-Performance Sport Electric Bike

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The [iScooter M10](#) delivers speed and comfort for urban riders. Its 500W motor and 36V 10.5Ah battery provide up to 60 miles per charge at 15.5 MPH (unlockable to 22 MPH). Advanced front suspension and breathable ergonomic sport seat ensure smooth, comfortable rides. Equipped with 26" pneumatic tires, mechanical brakes, full fenders, and rear LED, the M10 excels in safety and durability. Supporting riders 5'3"–6'5" and up to 330 lbs, it's ideal for taller or heavier riders seeking speed, range, and performance without compromise.

Conclusion

Understanding how an electric bike performs before you buy is essential, and that's where an [Electric Bike Testing](#) becomes invaluable. By testing key aspects such as handling, motor power, battery range, hill performance, braking efficiency, and overall comfort, riders can make informed decisions and choose the e-bike that best suits their needs.

Following safety precautions, proper setup, and test ride tips ensures accurate results and a safe experience. Whether you're commuting, exploring, or enjoying weekend rides, a structured electric bike test gives you confidence in your purchase, helping you find a bike that delivers performance, reliability, and enjoyment on every journey.

FAQs

How to test electric bikes?

Testing an electric bike ensures you choose the right model for comfort, performance, and reliability. Start by checking the battery, adjusting the seat and handlebars, and inspecting brakes and tires for safety. Take a test ride on different terrains to evaluate handling, motor power, pedal-assist levels, and suspension. iScooter makes this easy with models like the [U1](#), [U2](#), [U3](#), [U4](#), [UCity](#), and M10, all designed for smooth rides, long-range performance, and safety. Visit a verified iScooter test ride location to experience firsthand the power, comfort, and versatility of these electric bikes before making your purchase.

Do iScooter do test rides?

Yes! iScooter provides [test rides](#) at verified partner locations across the UK and Europe, allowing riders to experience their electric bikes firsthand before making a purchase. Whether you're interested in the [iScooter U1](#) for city commutes, the [U2](#) for long-distance comfort, or the [M10](#) for versatile urban and light trail riding, test rides let you evaluate handling, speed, battery performance, and comfort in real-world conditions. Booking a test ride is simple and free, giving you the confidence to choose the perfect iScooter e-bike for your lifestyle.

How to ride an electric bike step by step?

Riding an electric bike is easy and fun, especially with iScooter's range of user-friendly e-bikes.

Step 1: Safety First – wear a helmet, gloves, and any riding gear.

Step 2: Check Your Bike – ensure the battery is fully charged, brakes work, tires are inflated, and lights are functional.

Step 3: Adjust Your Bike – set the seat and handlebar height for comfort.

Step 4: Power On – turn on your iScooter e-bike and select your preferred pedal-assist or speed mode.

Step 5: Start Riding – begin pedaling gently; the motor will assist your ride smoothly.

Step 6: Test Controls – practice using brakes, throttle, and pedal assist to get familiar with

the bike.

Step 7: Enjoy the Ride – explore city streets or suburban paths with confidence.

What is the CBT test for electric bikes?

A CBT allows you to ride a 125cc or electric equivalent on the road with L plates, and you need to do one before you can go for a full motorbike licence. The CBT isn't actually a test: it's a certificate that shows you are competent enough to ride a motorbike safely on the road.