

Bicycle Review:

2016 PEDEGO “Ridge Rider” Electric Mountain Bike

Welcome to the new generation of cycling—where technology redefines your perception of fun, freedom...and no more range anxiety!

By Bruce Pechman, The Muscleman of Technology®
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Mr. Bicep 7/16/15 (59 years old) at IDEA Fitness Show

Summary:

- You choose how you like to ride—no assist, throttle assist, or 5 levels of Pedal Assist
- Say goodbye to eBike “range anxiety”...48V 11 AMP battery gets 25 to 40 miles per charge
- 3” LCD Display attached to handlebars gives you precise battery status & trip feedback
- Equipped with 27.5” x 2.10” tires, Shimano’s SLX 20-speed & Suntour Front Suspension
- Battery built into downtube that can be charged on or off of the Ridge Rider for convenience
- Magura MTE Hydraulic Front & Rear Disc Brakes with 180mm rotors for commanding stops

No Ridge Rider Left Behind

Quite honestly this is one of the more difficult reviews I’ve ever had to write. Because after test riding the Ridge Rider for 4 weeks and 155 miles, I challenge any rider not to gush from the exhilaration of pure joy that overtakes your body and mind. It’s not just me either...interview any eBike owner and you’ll get the same answers and reactions. It demonstrates how easily a high quality eBike can change your perception of how much fun riding a bicycle can be again. The magic is in the engineering, design, and feature set Pedego selected when creating the 2016 Ridge Rider.

Although the Ridge Rider is classified as a mountain bike, the design lends itself to be just as capable as a superbly comfortable road bike. In fact I used the Ridge Rider as a road bike 90% of the time for this review. One of the first things I noticed on my initial test drive was how the geometry of the frame, particularly the handle bar height was nice and tall to keep you upright almost like a comfort bike. I have been on and owned several different styles of eBikes, but hands down the Ridge Rider is the most fun, powerful, responsive, and comfortable. It also integrates the most state of the art “High-Tech” eBike features.

What About the Battery?

Notice on the Ridge Rider you don't see a battery attached to the back of the bike. That's because it's disguised in the downtube! I'm going to give you a brief eBike 101 crash course. Let's start with Battery Tech. The first thing you need to know is something called “battery range” or miles per charge expected. Don't get all caught up in Volts & Amps because each company tailors a specific bike model with what they deem to be the perfect battery type and size for a particular model. All eBikes have wide-ranging expected miles per charge. That's because it's a difficult number to nail down for a myriad of reasons—and there are no steadfast rules or regulations to go by.



Consider the following as the main reasons why:

- Weight of eBike & weight of rider
- How do you quantify terrain: incline/decline/headwinds
- How much was motor assist engaged on trip, etc. etc. etc.



So there you have it, and that's why your mileage will vary. I can tell you the 2016 Ridge Rider uses state of the art high quality Samsung cells. It's a long lasting large capacity Samsung 48Volt, 11 Amp Lithium-Ion battery. In my testing you will not have range anxiety doing a typical 40 mile round trip providing you are pedaling 20% of the ride. I recently did a 30 mile trip pedaling about 50% of the time (with some steep hills) and the Ridge Rider display indicated I had 56% battery remaining and

that's the truth! One last cool feature about the Ridge Rider battery is you can charge it either on or off the bike frame. See photo above and notice how you can unlock the battery with the key...and just take it with you inside your house to charge (full charge will take about 2-4 hours depending on depletion level). You should also know Pedego backs the battery with a solid 3

year warranty—this is noteworthy because that battery happens to be about \$600 and it's also the most expensive component on the Ridge Rider!

Pedego Ridge Rider LCD Display is All Brains

The brain of the Ridge Rider is its 3" LCD backlit display. You can toggle the backlight to stay on by holding down the power switch for 2 seconds—very useful for night or other lighting situations. During sunny days it's bright enough that you won't need to use the backlight at all.



Think of the LCD display as your "*Command & Control Center*" since this is where you'll get detailed information about precise battery status known as the *Battery Management System* (BMS). In the picture on the left, I have 92% battery remaining. The Pedal Assist System (PAS) shown in the LCD display is explained in the next paragraph below.

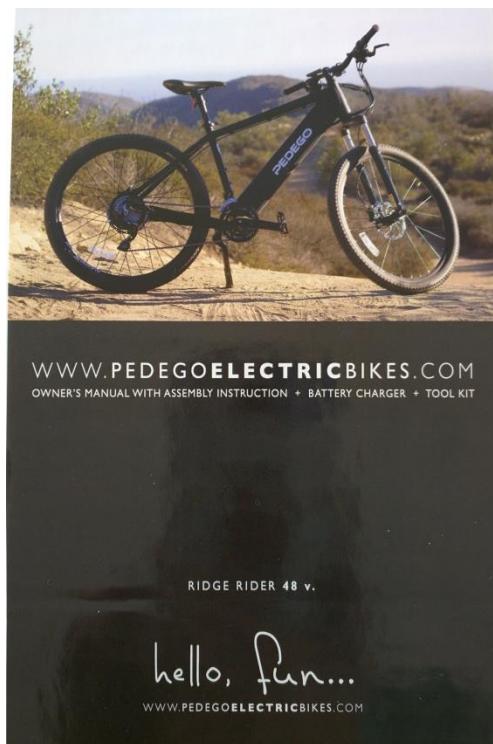
The rest of the display info is pretty simple to understand. The top is dedicated to current Miles per Hour, while the very bottom lets you know Total Distance of bike (ODO), Elapsed Riding Time of current trip (TIME), and Current Trip Distance (TRIP) which you can zero out before each ride. You toggle through each of these settings by just pressing the "SET" button on the left.

Another slick feature worth mentioning is located at the very bottom of the LCD display. You'll notice it has a built-in covered USB phone charging port! It's nice to know you can charge your phone (or USB bike lights) just in case of unforeseen circumstances, and it is a very forward thinking feature that comes standard on all Pedego Ridge Riders.

Pedal Assist System (PAS) - You Have the Power

The lower left of the display lets you select through each of 7 Riding Modes (no correlation with what gear you are bicycling in). BTW, Level 0 as pictured above is no power assistance at all (rides just like a traditional bike). In contrast for example, Level 5 is maximum pedal assist and Level 1 is minimal pedal assist. Got it? So guess what Level 6 is for? Level 6 is reserved for throttle only and overrides the PAS. The throttle is on the right handlebar and works just like a motorcycle throttle by twisting towards you.

If you're really tired and just want to enjoy the scenery without pedaling at all...just hit the throttle (it always overrides all PAS levels)!



Ridge Rider Owner's Manual

Pedego “PedalSense” Technology with Torque Sensor

Before moving on from the PAS, you should briefly understand how it works because it’s pretty darn cool. When using any of the Pedal Assist modes, “*PedalSense* technology along with the Torque Sensor on the pedal crank goes to work. You’ll love this feature—*PedalSense* simply takes into account your pedaling pace along with how much you’re struggling or not and the torque sensor adjusts to your cadence...it’s a blast and super fun. But don’t worry; if you stop pedaling or hit the brakes...the PAS will cut off immediately!



Torque Sensor with Patented PedalSense Technology

Where the Rubber Meets the Road

What consumers are ultimately looking for in an eBike is one that performs and rides as close to a traditional bicycle as possible—while still being intuitive and simple to operate.

The 2016 Pedego Ridge Rider does this with aplomb. As an experienced eBike cyclist, I think Pedego nailed the right mix of high quality bike components on the Ridge Rider while matching those parts with the proper engineering choices.



2016 Pedego Ridge Rider in Matte Black...Notice Designer Accents: Matching Black Rims, Crankarms, Seatpost, Suspension Fork, Handlebars, Seat, and Stem. 500 Watt Motor on Rear Hub is almost invisible!

Spec Me Out

The Ridge Rider's powerful 500 watt brushless motor is mounted in the rear hub and is extremely low profile. Combined with a Shimano SLX 20 speed trigger shifter, you'll find the right gear for almost any riding condition. The brakes are crazy good and you would expect nothing less from Magura's MTE front & rear hydraulic disc brakes with oversized 180mm rotors. The front suspension is smooth and comfy delivered via Suntour's model 32XCR Air Fork with 100mm of travel. Yes, you can lockout the suspension by just twisting the blue switch on top the fork.

Alex double wall rims (model MD19) are mounted to Kenda's 27.5" x 2.10" all-weather rugged tires (model K1104A) which are nicely suited for street or off road. Pedego includes a heavy duty matching black kickstand designed specifically to support the Ridge Rider.



That Black Circular Thing is the 500 Watt Motor

Here are a few other tidbits you may want to know. The Ridge Rider MSRP is \$3,395 and weighs about 52 pounds with battery. Bike warranty is one year, but battery is 3 years. The frame is made from 6061 lightweight aluminum and has about 8" of ground clearance to the bottom bracket. The maximum speed using motor power assist is 20 MPH. The front hub does have a Quick Release to easily remove the tire and you can adjust the front fork suspension to your specific weight. The maximum weight of a rider per the manual is 250 pounds.

Things I Would Change

No review is honest or complete without suggestions to areas I would like to see improved upon. Overall the Pedego Ridge Rider is a fabulous machine and out of a score of 100 I would give it a solid grade of 94. That being said, here are some of the shortcomings in my opinion:

- The Ridge Rider should have some form of integrated anti-theft mechanism to prevent someone from just jumping on it and taking off. Perhaps without an ignition key for example, trying to move the rear wheel would be like pushing cement (the battery on the downtube does in fact lock with a key).
- Two areas during the battery charging procedure need refining. First, during battery charging, the Amber colored LED light on the charger turns Green when fully charged. The problem is from the side, the Amber LED looks Green all the time! You need to look at it from dead center to determine if it's really Amber or Green. Second, IMHO the charger should have an on/off switch built-in to prevent sparking or possible damage.
- The manual is well written with assembly instructions, FAQ's, adjustments, ride instructions, and basic usage. However a separate detailed addendum focusing on the LCD Display's detailed usage is desperately needed. There are many topics and tips that should be explained for getting the most from your new Ridge Rider including a key that explains what every icon on the Display stands for which is currently missing.
- On top left of the LCD Display there is enough room to add a simple 12 hour clock.

Take a Test Ride

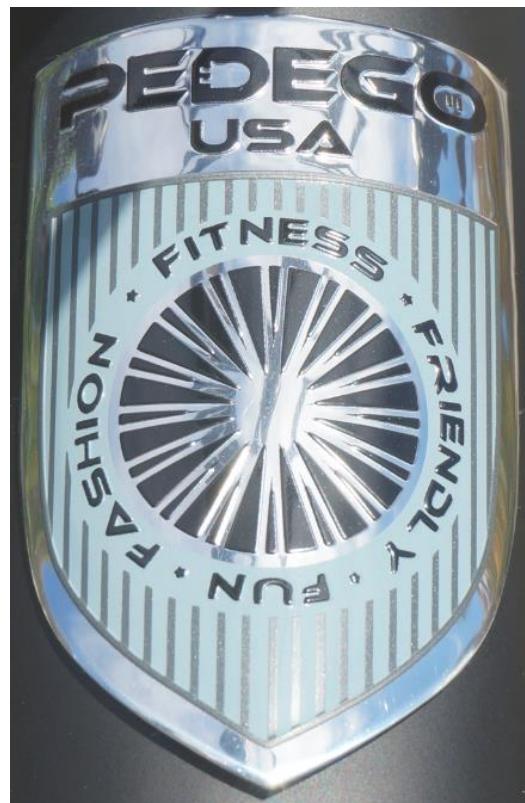
Did you know that Pedego is one of the largest and fastest growing eBike brands in the world? Here is something else you probably didn't know: Pedego electric bikes are sold in more than 800 stores in 40 countries! Just go to www.pedegoelectricbikes.com to find the closest dealer in your city. By the way there are several different models of eBikes Pedego sells so make sure to check them all out while you're there and ask lots of questions!

Conclusion and Benefits of Exercise

As I'm about to hit my 60's in 2016 and am a role model for health & fitness (after all, I'm The Muscleman of Technology), I can tell you riding a bike is one of the best forms of exercise due to its low impact on the joints, great cardio, and it's so darn enjoyable! Why not take advantage of technology and try an eBike to give you the freedom to really get out and ride? I like to recommend Pedego as they have a huge national network of dealerships for support and great service. They also have a nice variety of eBikes to choose from at many price points. I love the 2016 Ridge Rider and can't wait to take it out for another spin as soon as I finish this last sentence!

Bruce Pechman, *The Muscleman of Technology*® is a Consumer Technology and Fitness Personality appearing regularly on "Good Morning San Diego" (KUSI-TV) and the KTLA Morning Show in Hollywood. Bruce's moniker reflects his 20 years of industry technology expertise, and 40 years of fitness training. He has made over 400 live TV appearances on major network television. But, whether his bicep triple peaks are 17" or 18" still remains a mystery.

Visit him at www.mrbicep.com



The Pedego Badge of Honor