

E-Bike 101: Welcome to Electric Biking

What's an E-Bike, Anyway?

An **e-bike** is essentially a regular bike — but with a little extra kick. It's equipped with a **motor and battery** that assist your pedaling, giving you more power so you go farther, climb hills easier, and ride with less sweat.

With an e-bike, you still pedal — but the motor helps make the ride smoother and more fun, whether you're commuting, cruising, or exploring.

Electric bikes can help riders climb hills easier, ride at faster speeds, transport cargo and other essentials, or ride further distances without tiring quickly due to pedal assist and throttle features.

And E-bikes are relaxing and fun to ride! Their powerful motors propel you faster and further than traditional bikes. E-bikes come in three classes. (see below)

Why Go Electric? The Perks of E-Biking

- **Less effort, more adventure** — E-bikes make hills, headwinds, and long distances feel easier, so you can ride farther and more often.
- **Save money & time** — Instead of driving a car and paying for parking, you can zip through the town or beachside streets with minimal cost (just charge and ride!).
- **Flexible & versatile** — Great for commuting, errands, beach rides, trail cruising — or just a laid-back Sunday ride.
- **Healthy & fun** — You still pedal and get exercise — but with less strain. A win for convenience and fitness.

E-Bike Classes & What They Mean

E-bikes come in different “classes,” which affect where and how you can ride them. Knowing this helps you ride safely and legally. Note; always check local rules — some bike paths or trails restrict certain classes.

Class 1 Electric Bikes

Class 1 e-bikes have a maximum assisted speed of 20 miles per hour. You can go faster than 20 mph, but the bike won't provide any motor assistance beyond that speed.

These bikes use pedal assistance only. They can't have a throttle.

- **Pedal Assistance: Yes**
- **Throttle: No**
- **Max Assisted Speed: 20 mph**
- **Speedometer Required: No**

Class 2 Electric Bikes

Class 2 e-bikes have a maximum assisted speed of 20 miles per hour, just like Class 1. However, Class 2 electric bikes have a throttle and may also have a pedal assist system.

An e-bike with a throttle but no pedal assist system is typically considered a motorized vehicle. This usually means that a Class 2 e-bike is not permitted on bike trails or multi-use paths.

- **Pedal Assistance: Optional (may be throttle-only)**
- **Throttle: Yes**
- **Max Assisted Speed: 20 mph**
- **Speedometer Required: No**

Class 3 Electric Bikes

Riders looking for high-speed electric bikes will love this class. These e-bikes can provide assisted speed of up to 28 miles per hour!

Class 3 e-bikes usually do not have throttles, and that's reflected in most state definitions of a Class 3 e-bike.

While this higher speed restricts riders from using them on most bike paths, it can be an advantage for commuters following traffic flow in the streets.

Given their high speeds, Class 3 e-bikes are required to have a speedometer.

- **Pedal Assistance: Yes**
- **Throttle: Optional (may be pedal-assist only)**
- **Max Assisted Speed: 28 mph**
- **Speedometer Required: Yes**

Class 4 Electric Bikes

Class 4 e-bikes are a relatively new addition. These e-bikes aren't actually even considered e-bikes. They're motor vehicles, like a moped. Class 4 e-bikes have nominal motor output above 750W and aren't limited to any max speed. They may have any combination of throttle and pedal assist system.

- **Pedal Assistance: Optional (may be throttle-only)**
- **Throttle: Optional (may be pedal-assist only)**

- **Max Assisted Speed: No limit**
- **Speedometer Required: Yes**

How Do I Know Which Class My E-Bike Is In?

Not all e-bikes can move between classes. Many manufactured e-bikes come with a label designating their default class, and some states require e-bikes to be manufactured or sold with a label designating their class.

If your e-bike doesn't have a sticker or label designating its class, check for 2 things:

1. Does your e-bike have a throttle? If so, it's most likely Class 2, but it may be 3 or even 4. So, next...
2. Check the settings on your e-bike's display. What maximum speed does your e-bike allow?
 - If 20 mph, it's Class 1 without a throttle or Class 2 with a throttle.
 - If 28 mph, it's Class 2 with a throttle or Class 3 if there isn't a throttle.
 - If higher than 28 mph, it's Class 4 or not classified as an e-bike.
 -

Which Is The Best Electric Bike Class For Me?

Who you are and the way you like to ride may give you some clues as to which of the three classes is your perfect match.

Young Riders

Depending on your location, riders under 16 are often prohibited from operating Class 3 e-bikes. In some cases, young riders are prohibited from operating e-bikes at all! If you're a teenager or parent of a teen, be sure to carefully review all your local legislation and restrictions when buying your e-bike.

Casual Ride

If you mostly ride for fun on flat, paved roads or bike trails, a Class 1 e-bike is perfect for you. If having pedal assist above 20 mph or using a throttle isn't at the

top of your wish list, you'll love the freedom of riding your Class 1 e-bike in most of the same places that a regular bike is typically allowed, including multi-use trails.

City Commute and Bike Lanes

When it comes to riding in the road with the flow of traffic, you usually won't face restrictions on an e-bike — just avoid high-speed roads where e-bikes can't keep up!

However, some cities, counties, and states only allow regular bikes and traditional cyclists to use bike lanes and multi-use paths. Class 1 e-bikes are most commonly allowed, and so are Class 2 in many places; just be careful with Class 3 if that's where you plan to ride.

Distance Biking

You may benefit from higher assisted speeds or a throttle if you crave long-distance rides. These features can provide relief during your travels without compromising your progress. Consider a Class 2 or Class 3 e-bike for amazing long-distance rides.

Trails And Off-Road Bike Paths

Class 3 e-bikes face heavy restrictions in state parks across the country. Class 2 e-bikes aren't far behind due to their throttles. And when it comes to national parks, e-bikes of any class are considered motorized vehicles — which means they aren't allowed on pathways meant for mountain bikes and other regular bikes.

For a trail-ready e-bike your best bet is a Class 1. We hope to see restrictions easing up in the coming years.