# Electric Bike Pedal Assist and Throttle, Everything Riders Should Know

*This article will introduce the concept, advantages and disadvantages, and applicable scenarios of pedal assist and throttle of e-bikes.*


HIPEAK FOLDING EBIKE


HIPEAK Ebikes Life

LOS ANGELES , CALIFORNIA, THE UNITED STATES, April 27, 2023 /EINPresswire.com/ -- An electric bicycle is a battery-powered vehicle that can be driven in two modes: pedal-assisted and throttle. This article will introduce the concept, advantages and disadvantages, and applicable scenarios of pedal assist and throttle of e-bikes to help buyers better select and use an e-bike.

What is pedal assist?
Pedal assist is an electric bike drive mode, also known as “assisted riding”. In this mode, the e-bike needs to be pedaled to activate the motor, which delivers power in response to the rider's force, thus providing drive.

Torque and speed sensor
Special sensors must be installed on the electric bike for the pedal assist function to work. The sensors are connected to the motor so that riders can use the pedal assist setting to control the speed indicator. There are two main types of sensors: torque and speed. Today, most e-bike companies produce bikes with one or two pedal assist systems.

Speed pedal assist

Speed pedal assist is an electric bike drive mode that provides drive by the rider pedaling to activate the motor and output the appropriate amount of power.
The different pedal assist options are usually divided according to the motor output, typically 1-5, 1-7 or 1-9 gears. Also, the exact power output and speed of each gear can vary from one make and model of e-bike to another.
In general, taking HiPeak 7-speed assist mode as an example, the lower pedal assist option has a relatively low output for people who need to maintain a slower speed, ride short distances or want to get an easy workout, while the higher pedal assist option has a higher output for people who need to face a lot of hills, ride long distances or want to get a higher speed.
It is important to note that speed limits for e-bikes may vary from country to country and region to region. For example, in Europe, the maximum speed limit for e-bikes is usually 15 mph, while in the United States and Canada, the maximum speed limit is 28 mph. Therefore, when choosing an e-bike, it is important to consider not only the output and speed of the pedal assist option, but also to make a judgment call based on local regulations and restrictions.
The Speed Pedal Assist option offers a variety of riding modes and speed options to meet the needs of different people and scenarios. When choosing an e-bike, people need to consider their actual needs, habits and local regulations to select the right pedal assist option and speed range.

Torque pedal assist
Torque sensors are more advanced than speed sensors, but they work on different mechanisms.
Torque is the amount of torque output by the e-bike motor, which can be interpreted as the amount of "power" the motor has. In pedal-assist mode, the motor delivers power in response to the rider's force, thus providing drive.
Torque is closely related to pedal assist drive mode. Generally speaking, higher torque can bring better starting ability, climbing ability and acceleration performance, especially for users who need to face complicated road conditions or need to do high intensity riding. Lower torque, on the other hand, may cause e-bike riders to feel more strained in scenarios such as starting and climbing, requiring more effort.
In practice, different brands and models of e-bikes will offer different ranges of torque and often have multiple pedal assist gears to choose from. In generally, the high-grand pedal assist option will output more torque for higher demands and scenarios, while the low-grade pedal assist option will output relatively less torque for people who need to ride easily or do light exercise.

What is throttle
For electric bikes, the function of throttle equate with motorcycles and scooters. When it starts, it gives the bike enough power to propel itself forward.
In throttle mode, the rider does not need to pedal like regular bike, but only needs to turn the handle to control the power and speed of the motor output. This allows the rider to face complicated road conditions such as starts, ramps and headwinds more easily, while also allowing for more flexible and free riding by adjusting speed and direction as needed at any time.

Compared to pedal assist drive mode, e-bike throttle mode has the advantage of being simple and easy to use, and is suitable for people who are not good at or cannot use pedal assist mode, such as elderly or physically challenged people, or users with special needs and circumstances. At the same time, electric bike throttle mode can relieve riders' fatigue and stress to a certain extent.
However, there are some disadvantages on electric bike throttle mode, such as more battery-consuming, poorer range compared to pedal assist mode. Therefore, when using e-bike throttle mode, one needs to pay attention to charge in time and keep safety.
In addition, cyclists can try HiPeak, a half twist throttle. The throttle will be a perfect choice in a variety of situations. These include riding safely past others on the road, accelerating up a hill, or staying steady when riders are ready to move the bike.

Throttle and pedal assist: which one is a better choice
People must know why they ride an e-bike to have a effective choice. People's preference is their top priority that guides their choice. If they like to enjoy splendid view, a throttle is a good choice.
Although most electric bikes usually have a throttle or pedal assist, there are some brands that have both features installed, such as the HiPeak folding e-bike, allowing riders to control it more smooth and flexible. Now people can enjoy the two function simultaneously and have a variety of options to try on their ride.

Conclusion
Throttle and pedal assist are both very effective power systems with varying degrees of control. If people make their choice based on their motivation for buying an e-bike in the first place, whichever assist mode people choose that will be the best.

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